

TRANSMISSION PRODUCT CATALOG



WHO IS MACLEAN POWER SYSTEMS?

At **MACLEAN POWER SYSTEMS (MPS)**, we're setting the pace for what's next in utility infrastructure—driven by innovation, speed, and resilience. We deliver customer-inspired, engineered solutions for the construction, upgrade, maintenance, and repair of critical electrical transmission, distribution, and communications infrastructure—supporting the full lifecycle of the grid.

Our comprehensive portfolio includes switches, pole line hardware, insulators, arresters, connectors, anchors, crossarms, and related components—designed with linemen in mind: easy to specify, quick to install, and built to perform in the toughest conditions. From first-response storm restoration to major transmission build-outs, our solutions help utilities and telecom operators reduce operating costs and improve system reliability.

With manufacturing and operations across North America, we deliver industry-leading lead times, uncompromising quality, and the strategic reliability today's grid demands. Built right. Built to last. From engineering expertise to post-install support, MPS is more than a manufacturer—we're a partner you can count on, start to finish.

MacLean Power Systems – LEADING THE WAY™

WHAT WE OFFER

This catalog showcases our core product categories for overhead transmission systems, including:

Conductor Assemblies

Factory-assembled solutions designed for consistent performance and easier installation in the field.

Transmission Insulators

A complete offering of polymer and glass insulators in suspension, line post, braced post, and specialty configurations.

Connection Hardware

Reliable clamps, terminals, splices, and fittings engineered for strength, conductivity, and long-term service.

Conductor Hardware

Spacers, armor rods, and shielding products designed to protect conductors and extend line life.



THE COMPLETE TRANSMISSION SOLUTION

QUALITY PRODUCTS [For Application at High Voltage (HV) & Extra High Voltage (EHV) - AC / DC Designs]

Polymer Insulators

- Suspension
- Line Post
- Braced Post
- Phase Spacers
- Station Class Posts

Toughened Glass

- ANSI 22kip - 50kip
- IEC 300kN - 550kN
- Standard Profile
- RTV Silicone Coated

Hardware

- Connection Hardware
- Conductor Hardware
- Complete Assemblies
- Corona Free Assemblies

Anchoring & Guying

- Structural / Foundation Piles [Helical - Grouted - Micro]
- Guy Strain Assemblies
- Silicone-Coated Guy Strain Insulators

UNMATCHED SERVICE

Support

- Project Initiation - Completion
- Custom Packaging
- Training - Field Support
- Maintenance and Inspection

Engineering

- Load Curve Generation
- E-Field Modeling
- Engineered Solutions
- High Strength Applications



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Double String Deadend Assembly	SCA15 - SCA16
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TRANSMISSION SAFETY PRODUCTS

Anti-Climbing Guards	-
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TRANSMISSION TEAM MEMBERS

Honoring 30 Years of Excellence	-
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TRANSMISSION SINGLE CONDUCTOR ASSEMBLIES

HV [≤ 230 kV]



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP

SINGLE CONDUCTOR ASSEMBLIES HV [$\leq 230\text{kV}$]

APPLICATION NOTES

Application Notes:

- All assemblies are customizable; If you can't find exactly what you need in the catalog, reach out to transmission@macleanpower.com for immediate support for your project
- Insulator (Item "INS") supplied separately from connection hardware catalog number
- Clamps (Item "CLAMP") supplied separately from connection hardware catalog number
- Additional conductor hardware, such as armor rod, also supplied separately from connection hardware catalog number
- 30K rated hardware assemblies compatible with 25K and 30K insulators
- 50K rated hardware assemblies compatible with 50K insulators
- Insulator section contains all detailed specs and options
- Conductor Hardware section contains all detailed specs and options

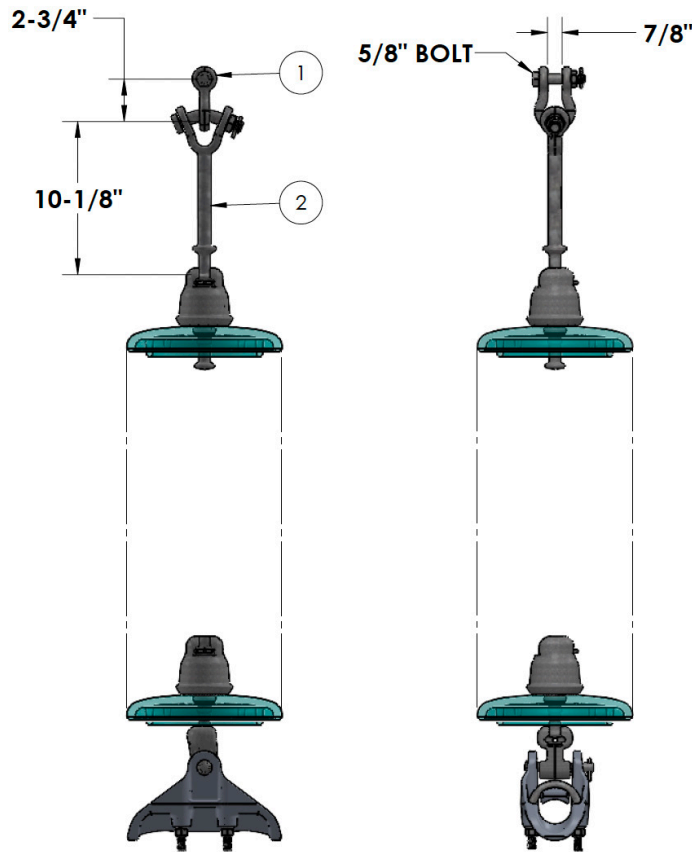


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
INS	S54080....	30k	30K Suspension (25k S1)	1	Polymer Insulator
CLAMP	LS-S Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

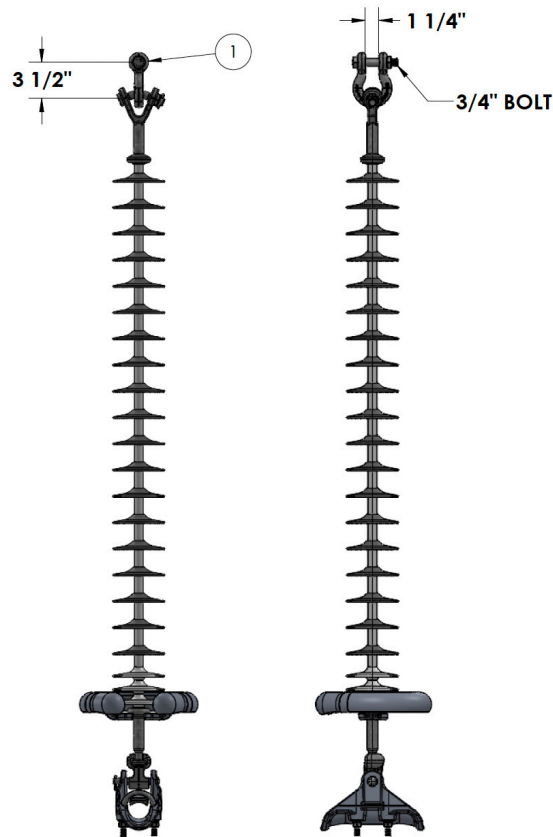


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-65A	30k	Y-Clevis Ball Hot Line 52-3/5	1	Galvanized Forged Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	-	Ceramic Insulator
CLAMP	LS-S Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

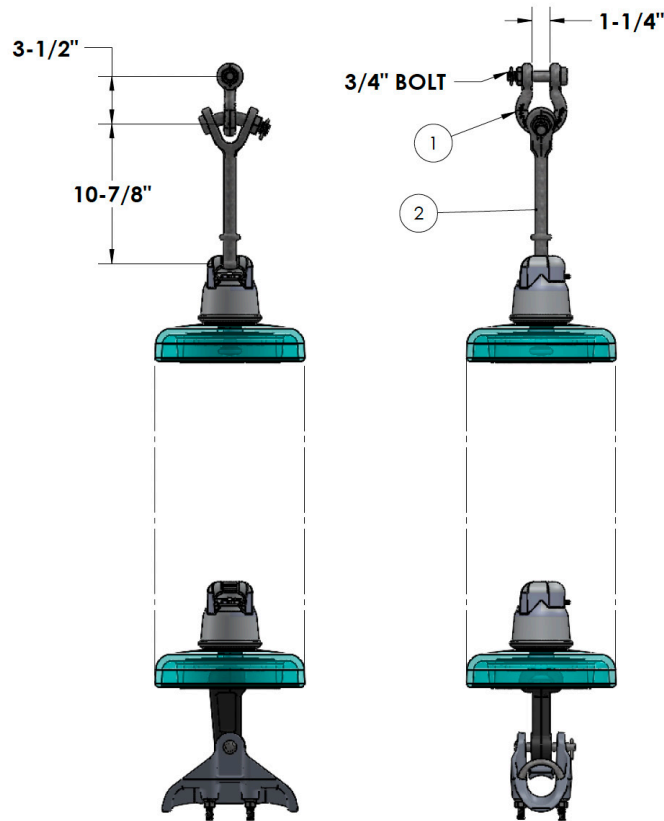


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
INS	S24080....	50k	50K Suspension	1	Polymer Insulator
CLAMP	LS-S8 Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

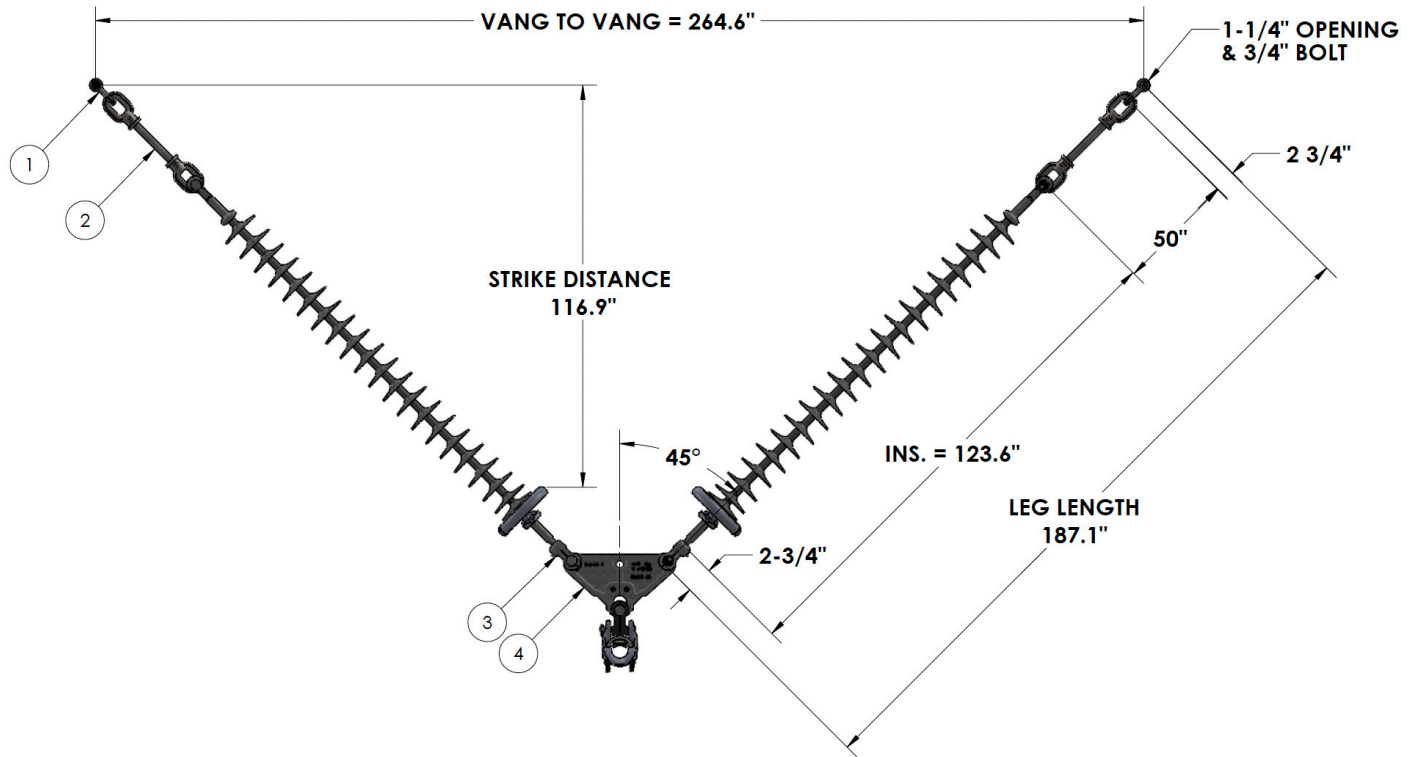


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	LS-S8 Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

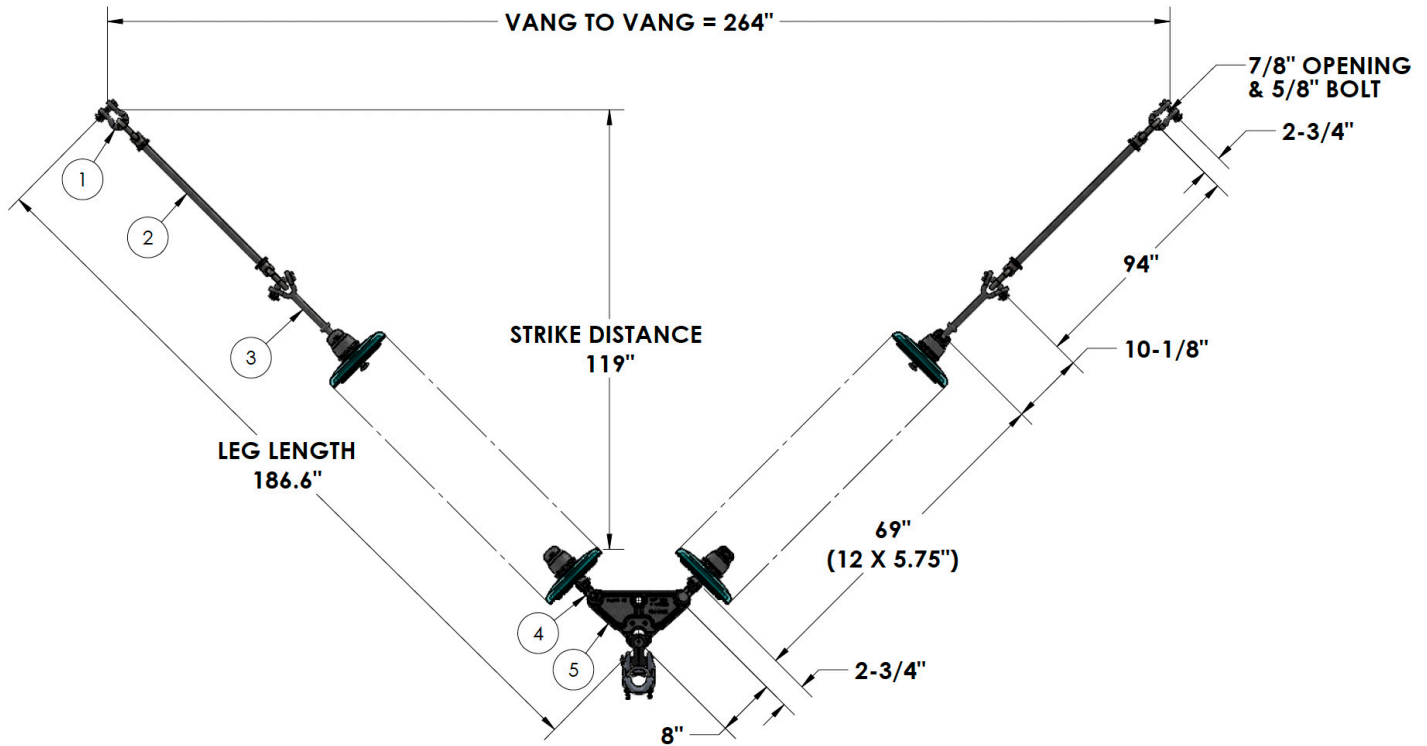


Connection Hardware Catalog #: **X2VS2YB30A1-4550**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-50	30k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y1VS050D	50k	V-String Yoke Plate	1	Galvanized Ductile Iron
INS	S54080112VASS034	30k	30K Suspension (25k S1)	2	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	1	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, markup this assembly and contact transmission@macleanpower.com
- For additional application notes, see page SCA2

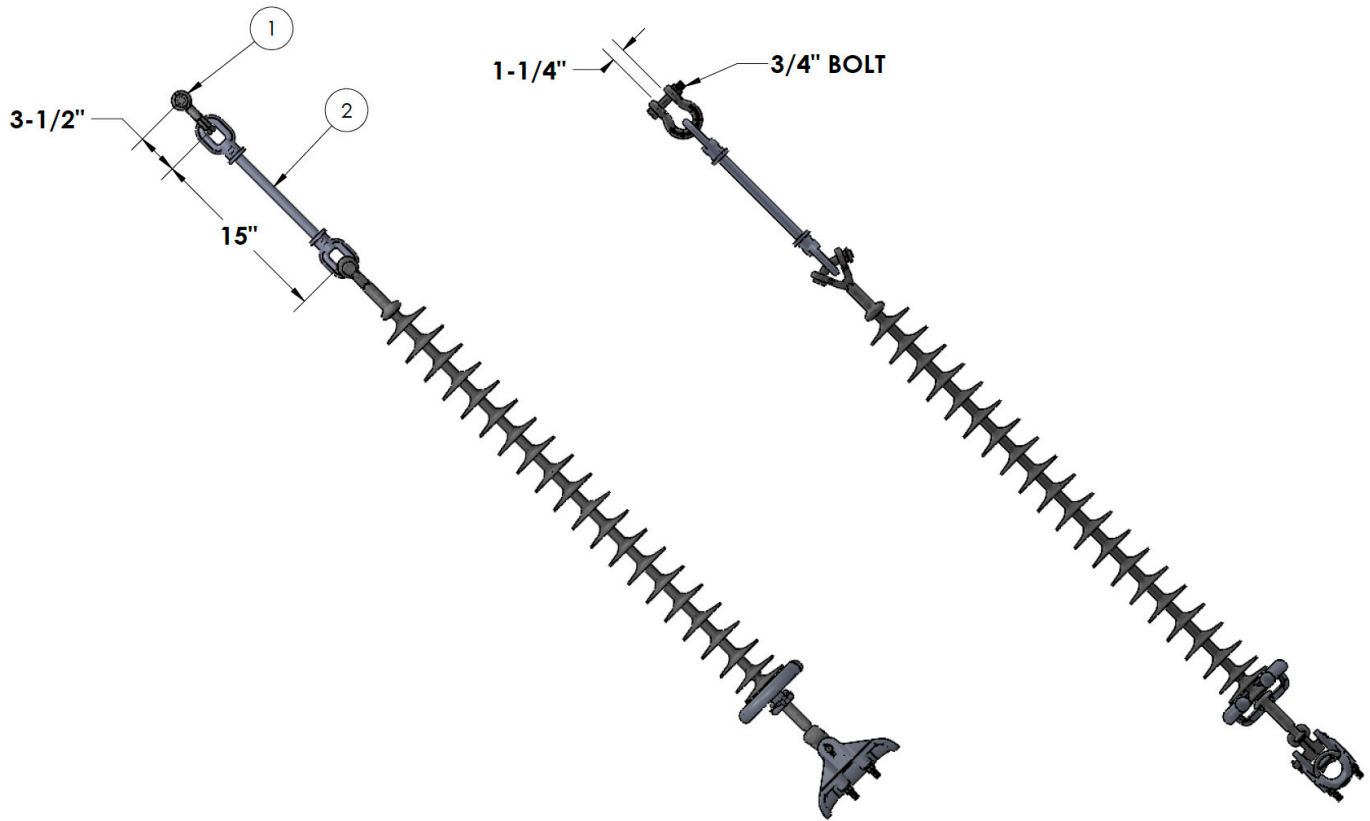


Connection Hardware Catalog #: **X2VS2SB30A1-4594**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-50	30k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-65A	35k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
4	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
5	Y1VS050D	50k	V-String Yoke	1	Galvanized Ductile Iron
INS	MG525Z	30k	ANSI 52-5 (J Type)	24	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	1	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Ceramic insulator design is defined as 12 disc strings
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, markup this assembly and contact transmission@macleanpower.com
- For additional application notes, see page SCA2



Assembly shown for reference

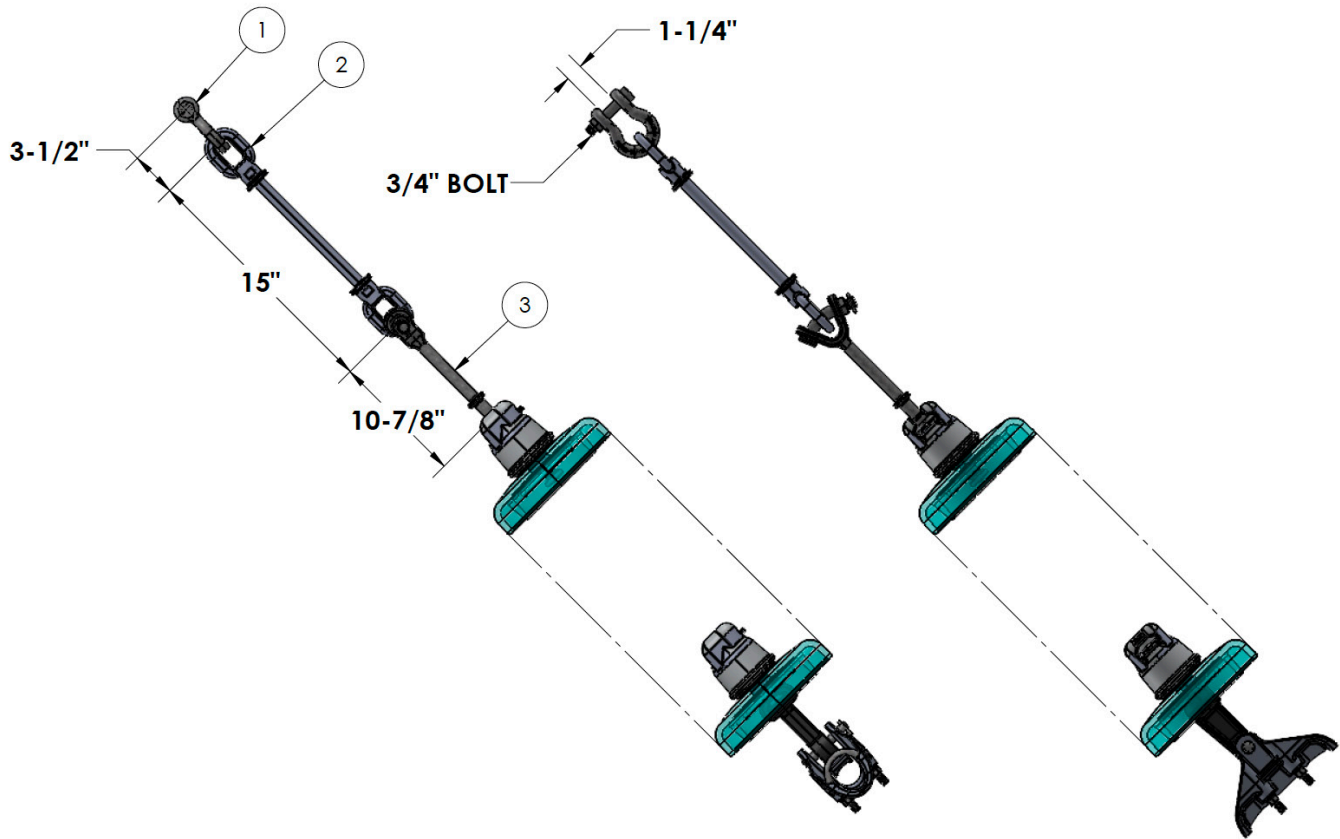
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
INS	S24080....	50k	50K Suspension	1	Polymer Insulator
CLAMP	LS-S8 Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

SINGLE CONDUCTOR RUNNING ANGLE ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Ceramic Insulator

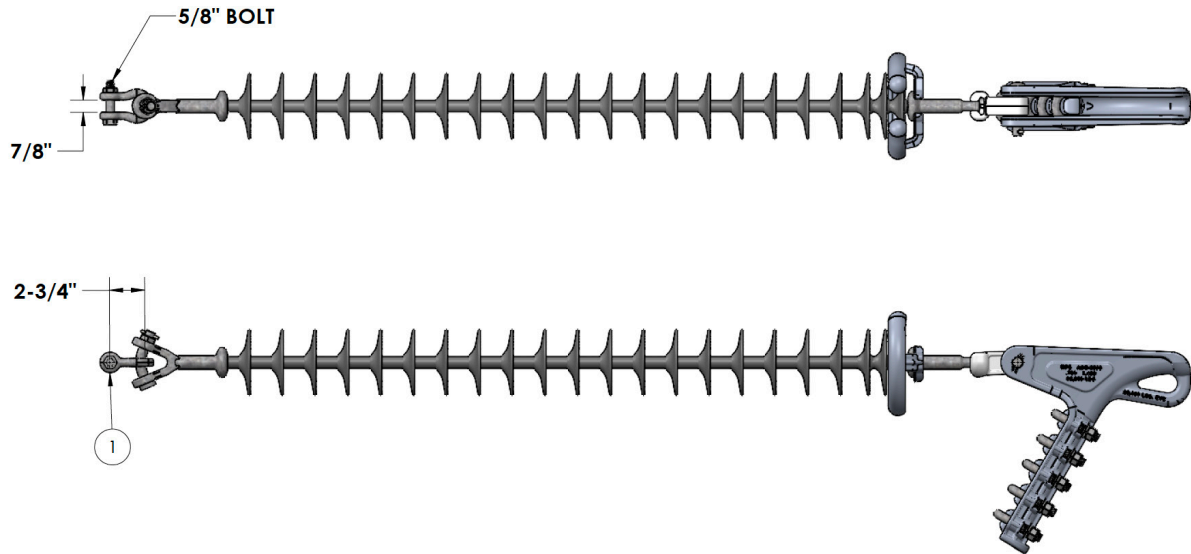


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis 52-8/11 Ball Hot Line	1	Galvanized Forged Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8/11 (K Type)	-	Ceramic Insulator
CLAMP	LS-S8 Series	-	HV Suspension Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

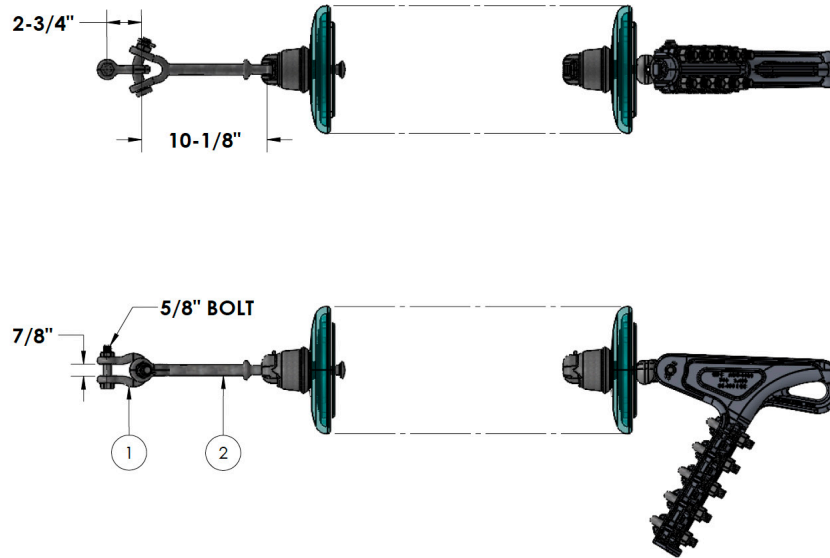
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
INS	S54080...	30k	30K Suspension (25k S1)	1	Polymer Insulator
CLAMP	ADE-S Series	-	HV Deadend Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

SINGLE CONDUCTOR SINGLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**30k
Ceramic Insulator**

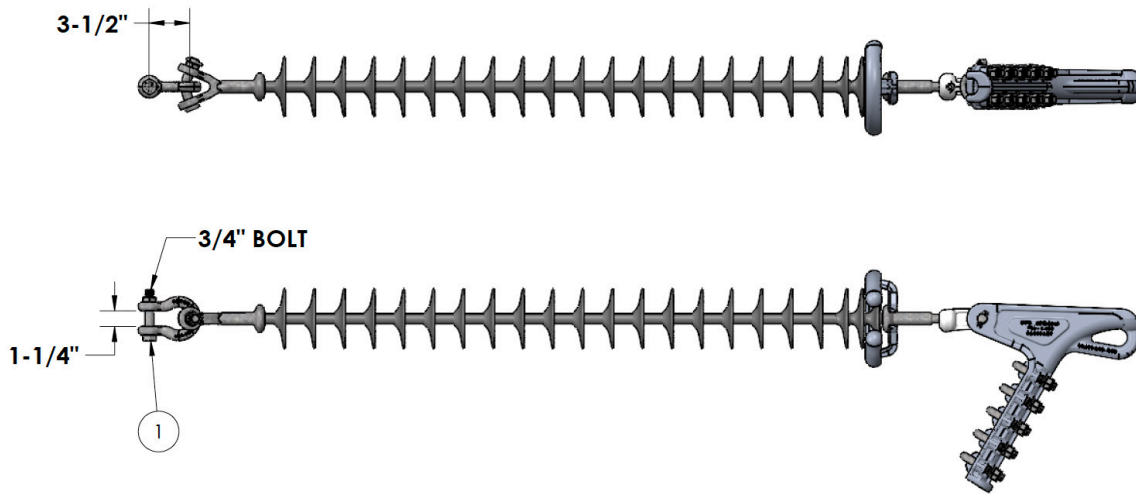


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-65A	35k	Y-Clevis Ball Hot Line 52-3/5	1	Galvanized Forged Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	-	Ceramic Insulator
CLAMP	ADE-S Series	-	HV Deadend Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

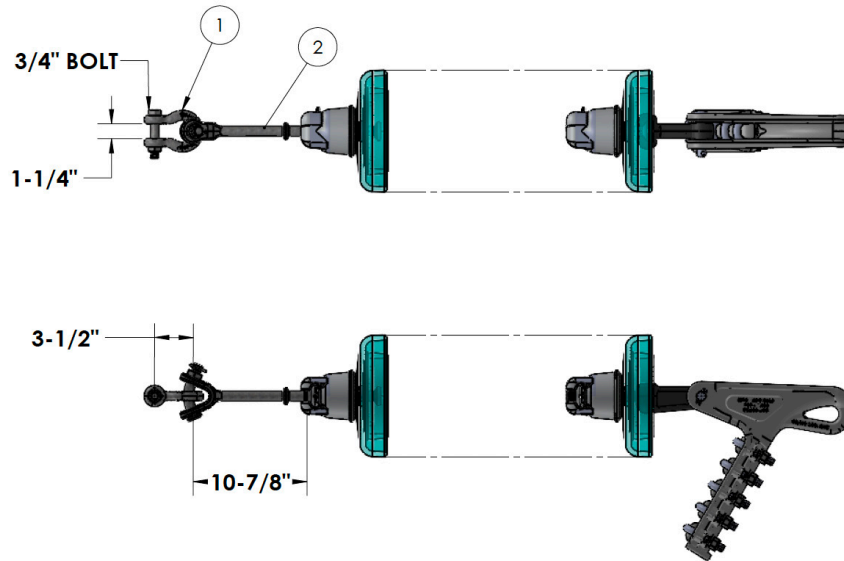
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
INS	S24080...	50k	50K Suspension	1	Polymer Insulator
CLAMP	ADE-S8 Series	-	HV Deadend Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

SINGLE CONDUCTOR SINGLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Ceramic Insulator



Assembly shown for reference

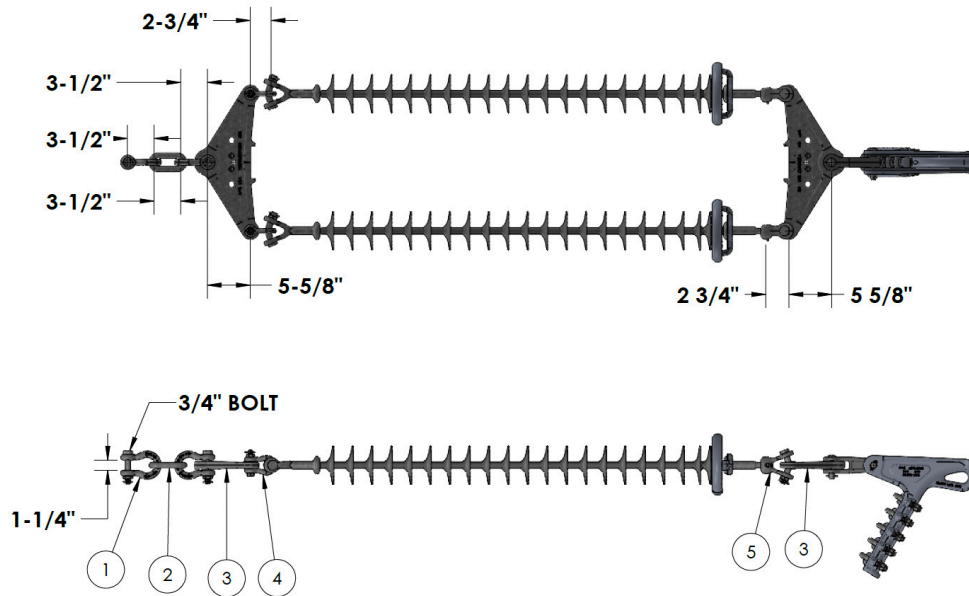
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	ADE-S8 Series	-	HV Deadend Clamp with Socket	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

SINGLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**30k
Polymer Insulator**



Connection Hardware Catalog #: **X2DE2YB30X1**

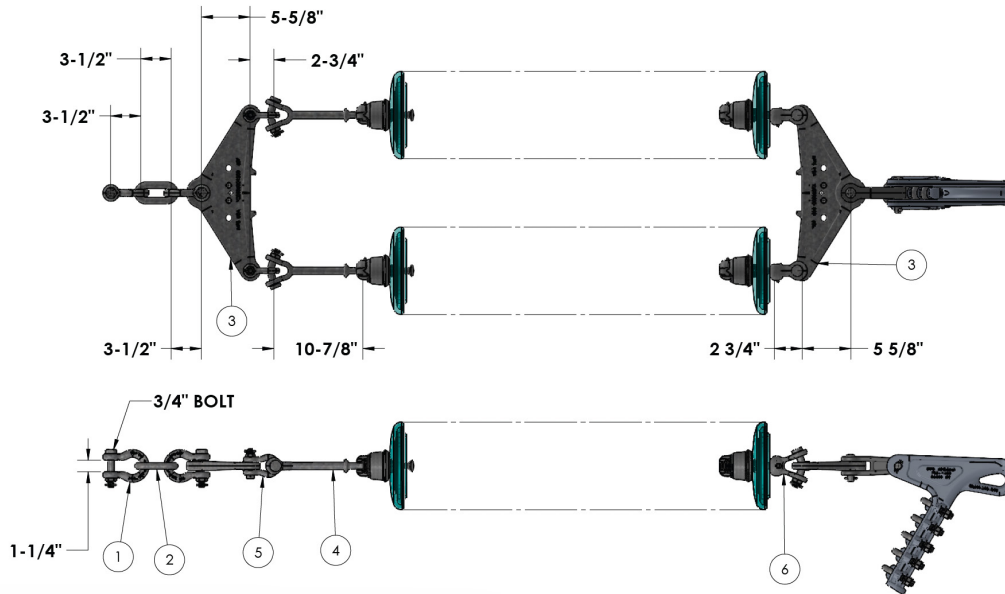
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Deadend Yoke Plate	2	Galvanized Ductile Iron
4	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
5	SYCR-56	30k	52-5 Socket Y-Clevis	2	Galvanized Ductile Iron
INS	S54080...	30k	30K Suspension (25k S1)	2	Polymer Insulator
CLAMP	ADE-C Series	-	HV Deadend Clamp with Clevis	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

SINGLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**30k
Ceramic Insulator**

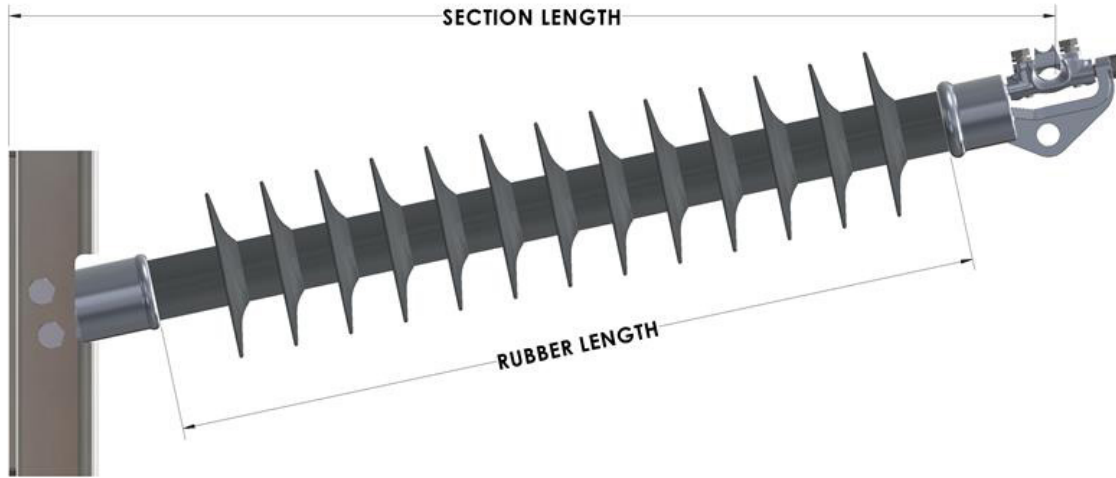


Connection Hardware Catalog #: **X2DE2SB30X1**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Deadend Yoke Plate	2	Galvanized Ductile Iron
4	YCBHL-65A	30k	Y-Clevis Ball Hot Line 52-3/5	1	Galvanized Forged Steel
5	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
6	SYCR-56	30k	52-5 Socket Y-Clevis	2	Galvanized Ductile Iron
INS	MG525Z	30k	ANSI 52-5 (J Type)	-	Ceramic Insulator
CLAMP	ADE-C Series	-	HV Deadend Clamp with Clevis	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H29020...	-	H2 Gain Base Line Post	1	Polymer Insulator
CLAMP	ACTS Series	-	HV Trunnion Clamp	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H29010...	-	H2 Gain Base Line Post	1	Polymer Insulator
CLAMP	LPJC Series	-	HV Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page SCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

TRANSMISSION DOUBLE CONDUCTOR ASSEMBLIES

HV [≤ 230 kV]



MPS Transmission Sales
transmission@macleanpower.com

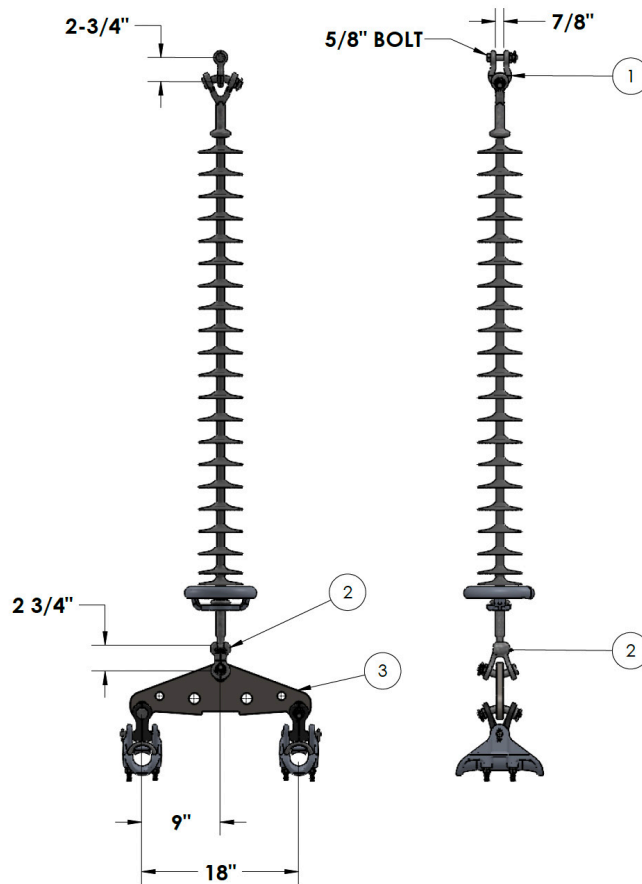
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DOUBLE CONDUCTOR ASSEMBLIES HV [$\leq 230\text{kV}$]

APPLICATION NOTES

Application Notes:

- All assemblies are customizable; If you can't find exactly what you need in the catalog, reach out to transmission@macleanpower.com for immediate support for your project
- Insulator (Item "INS") supplied separately from connection hardware catalog number
- Clamps (Item "CLAMP") supplied separately from connection hardware catalog number
- Additional conductor hardware, such as armor rod, also supplied separately from connection hardware catalog number
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- Insulator section contains all detailed specs and options
- Conductor Hardware section contains all detailed specs and options

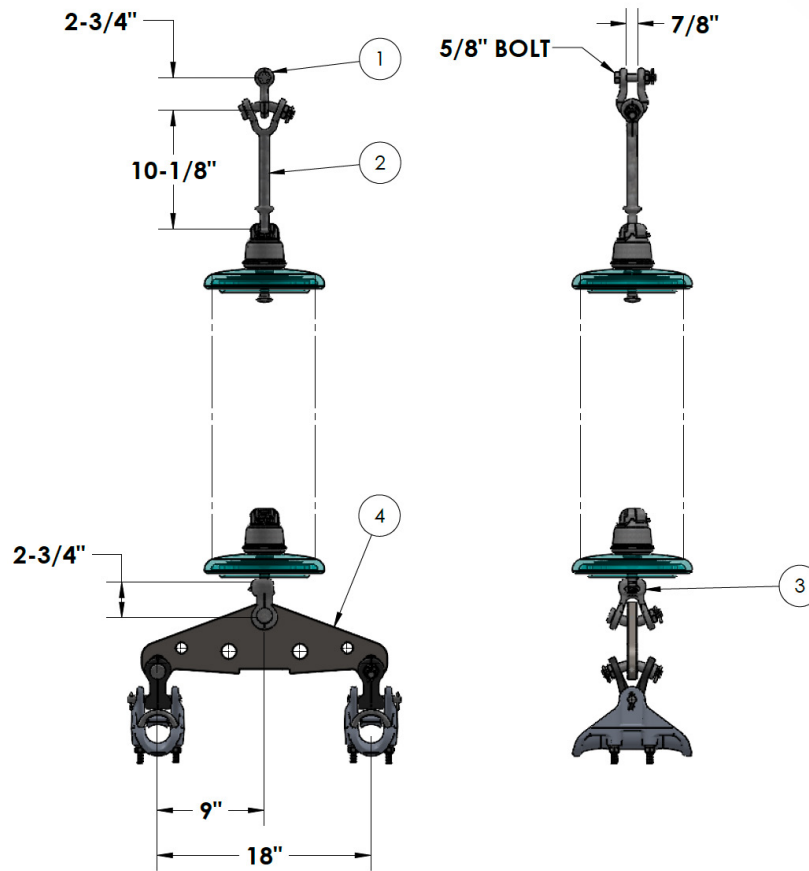


Connection Hardware Catalog#: **X2SS1YB30X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
3	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S54080...	30k	30k Suspension (25k S1)	1	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

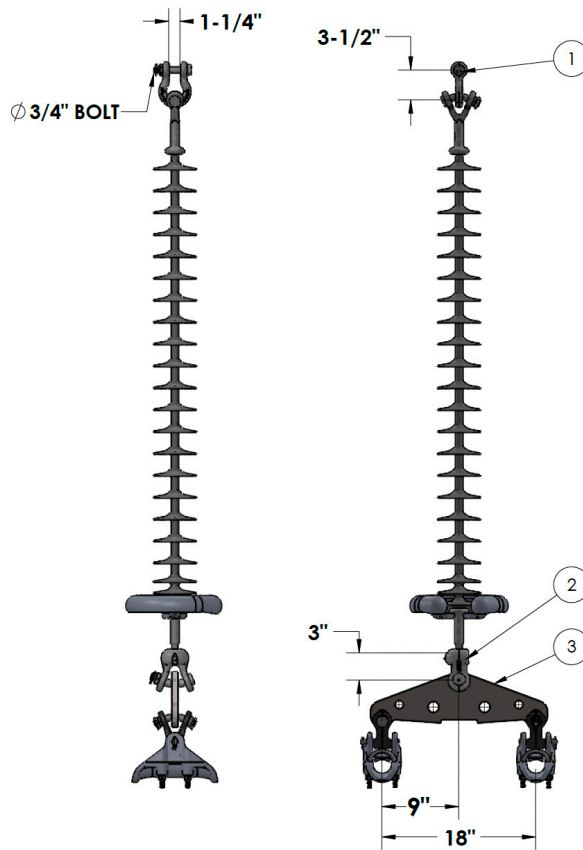


Connection Hardware Catalog#: **X2SS1SB30X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-65A	35k	Y-Clevis Ball Hot Line 52-3/5	1	Galvanized Forged Steel
3	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
5	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	-	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

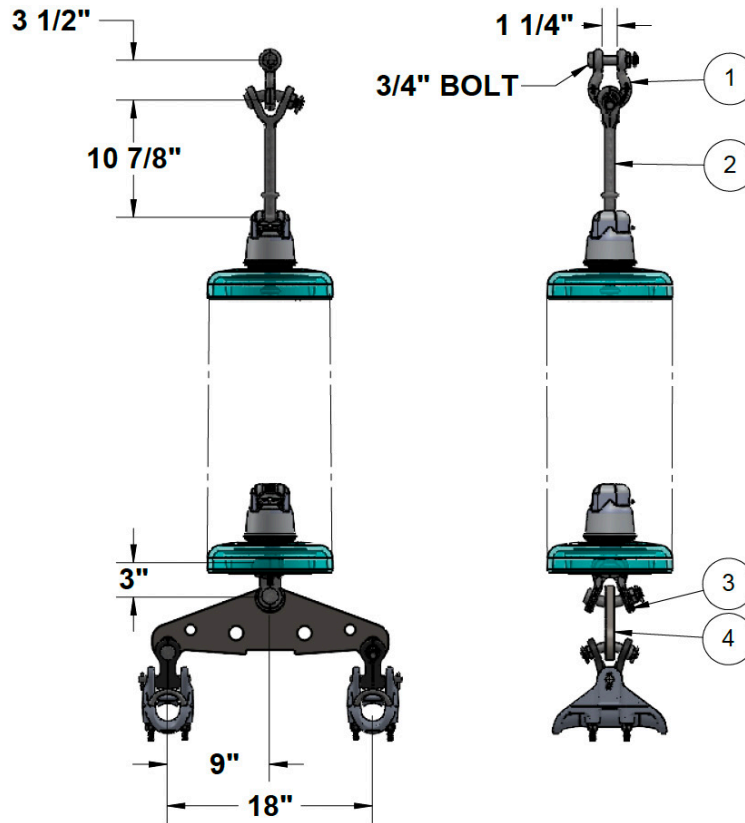


Connection Hardware Catalog#: **X2SS1YB50X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-87	50k	52-5 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
3	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S24080...	50k	50k Suspension	1	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

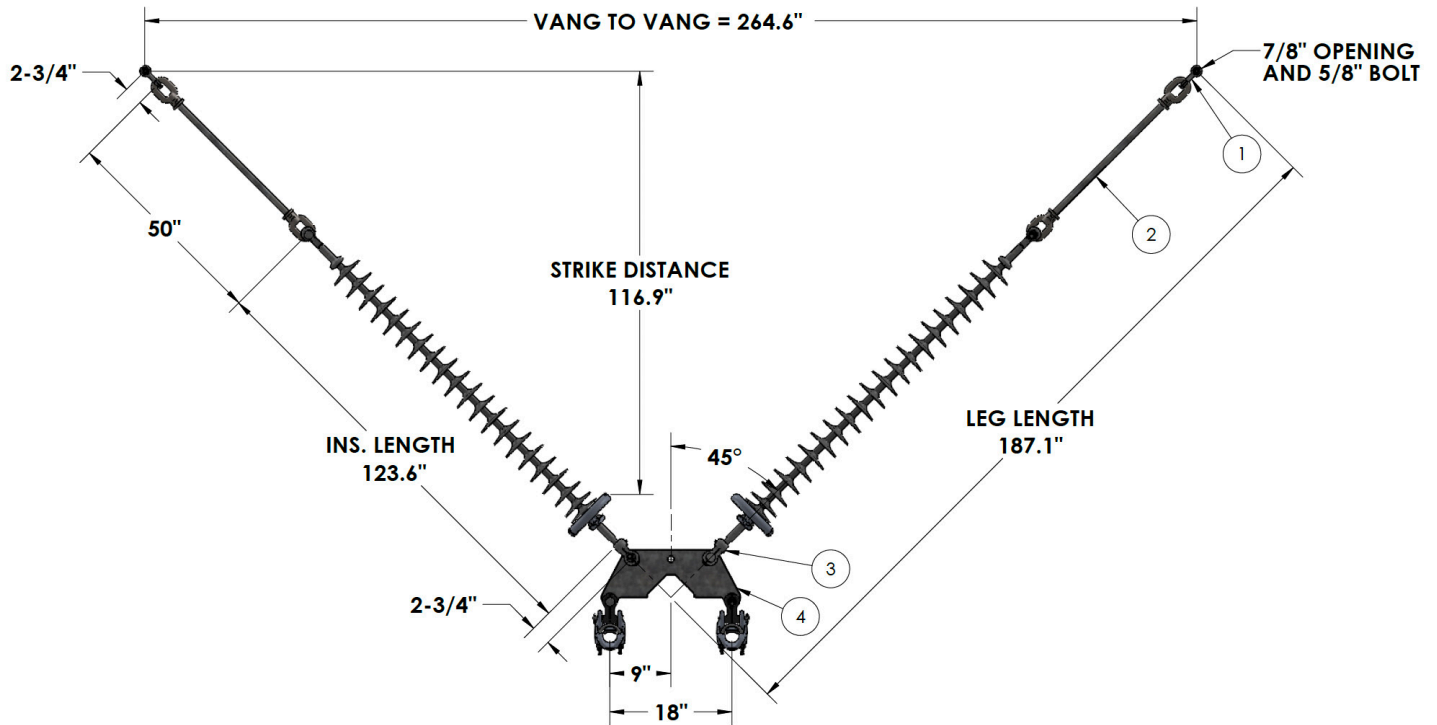


Connection Hardware Catalog#: **X2SS1SB50X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
3	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
4	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

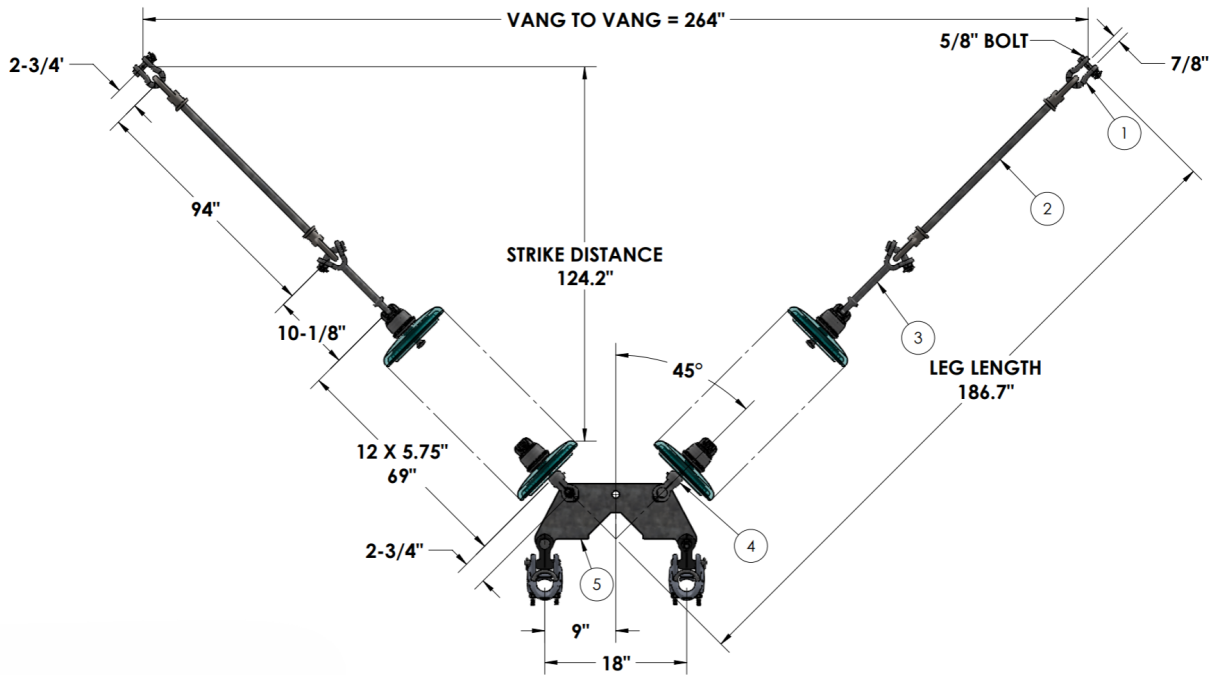


Connection Hardware Catalog#: **X2VS2YB30A2-4550**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-50	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y2VS030S1845	30k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S54080112VASS034	30k	30k Suspension (25k S1)	2	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, mark up this assembly and contact transmission@macleanpower.com
- For additional application notes, see page DCA2

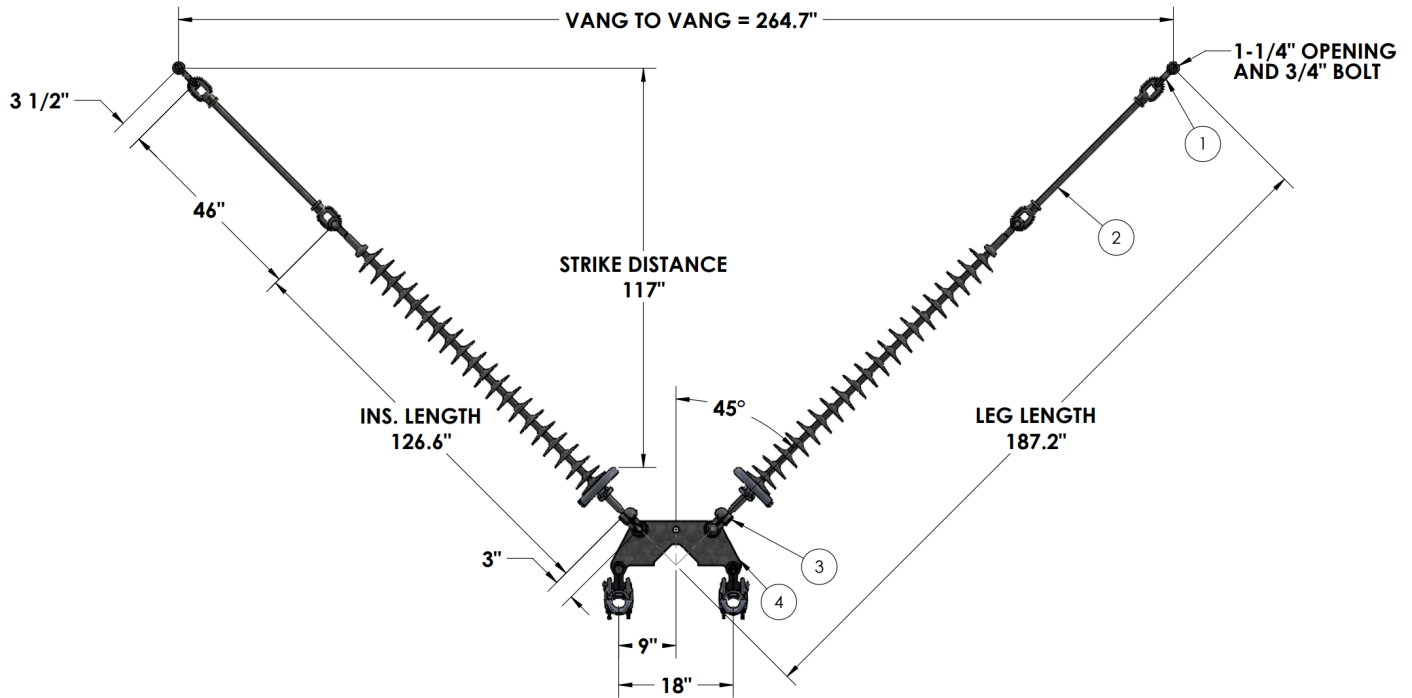


Connection Hardware Catalog#: **X2VS2SB30A2-4594**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-94	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-65A	35k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
4	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
5	Y2VS030S1845	30k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	24	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Ceramic insulator design is defined as 12 disc strings
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, mark up this assembly and contact transmission@macleanpower.com
- For additional application notes, see page DCA2



Connection Hardware Catalog#: **X2VS2YB50A2-4546**

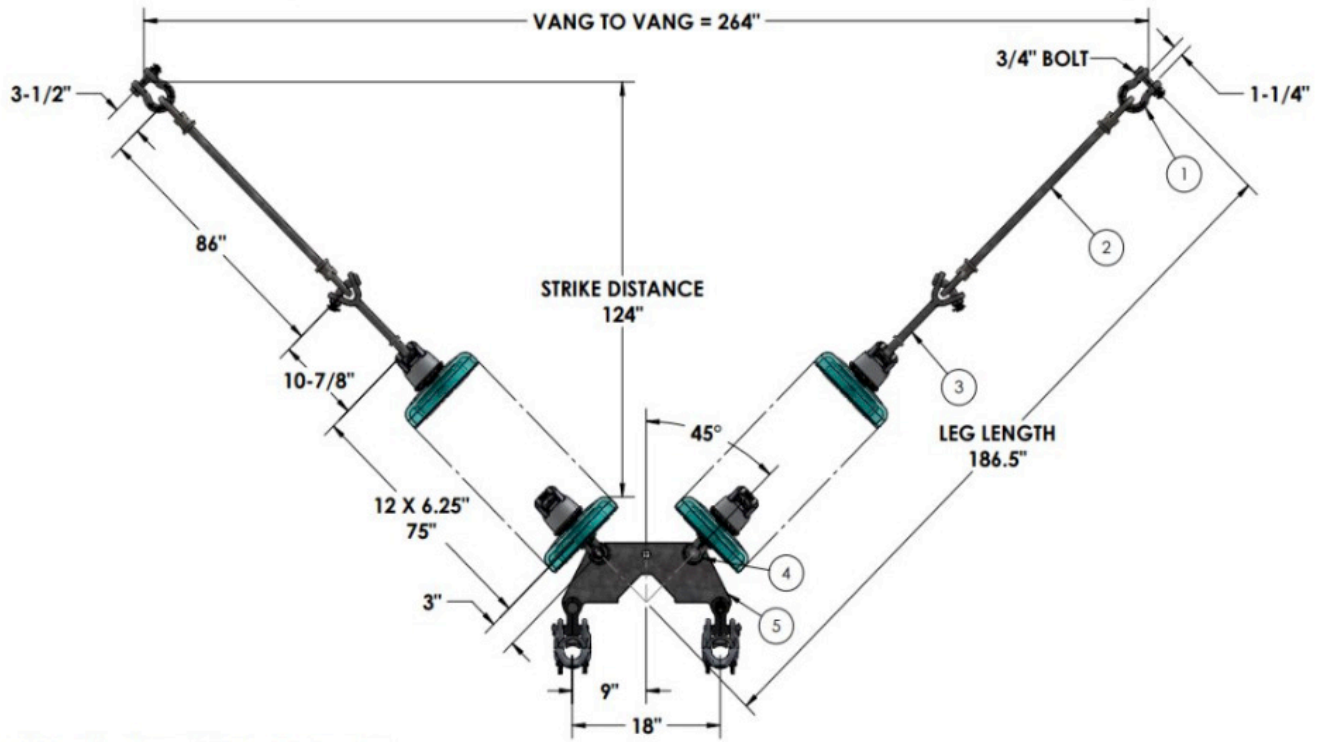
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-46	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y2VS050S1845	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S24080112VASS034	50k	50k Suspension	2	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, mark up this assembly and contact transmission@macleanpower.com
- For additional application notes, see page DCA2

DOUBLE CONDUCTOR HORIZONTAL V-STRING ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Ceramic Insulator



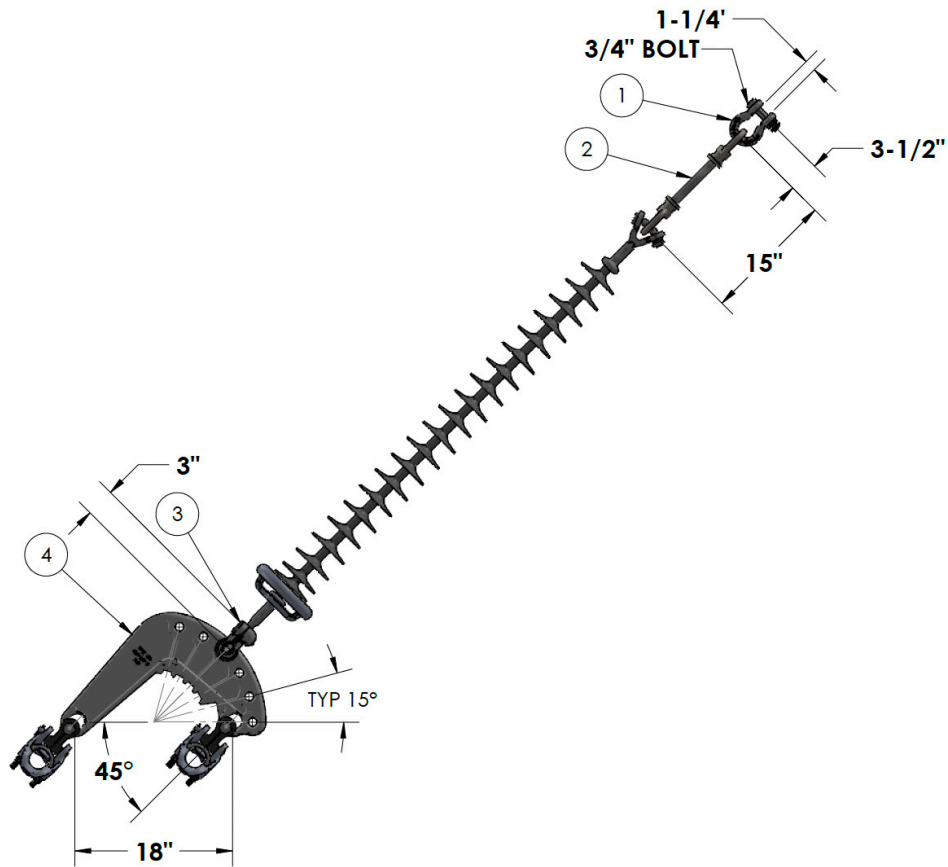
Connection Hardware Catalog#: **X2VS2SB50A2-4586**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-86	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
5	Y2VS050S1845	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	24	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This v-string is designed to fit a 264" vang to vang distance
- Ceramic insulator design is defined as 12 disc strings
- Insulator and clamp are not included in assembly and must be ordered separately
- For other vang to vang dimensions, mark up this assembly and contact transmission@macleanpower.com
- For additional application notes, see page DCA2



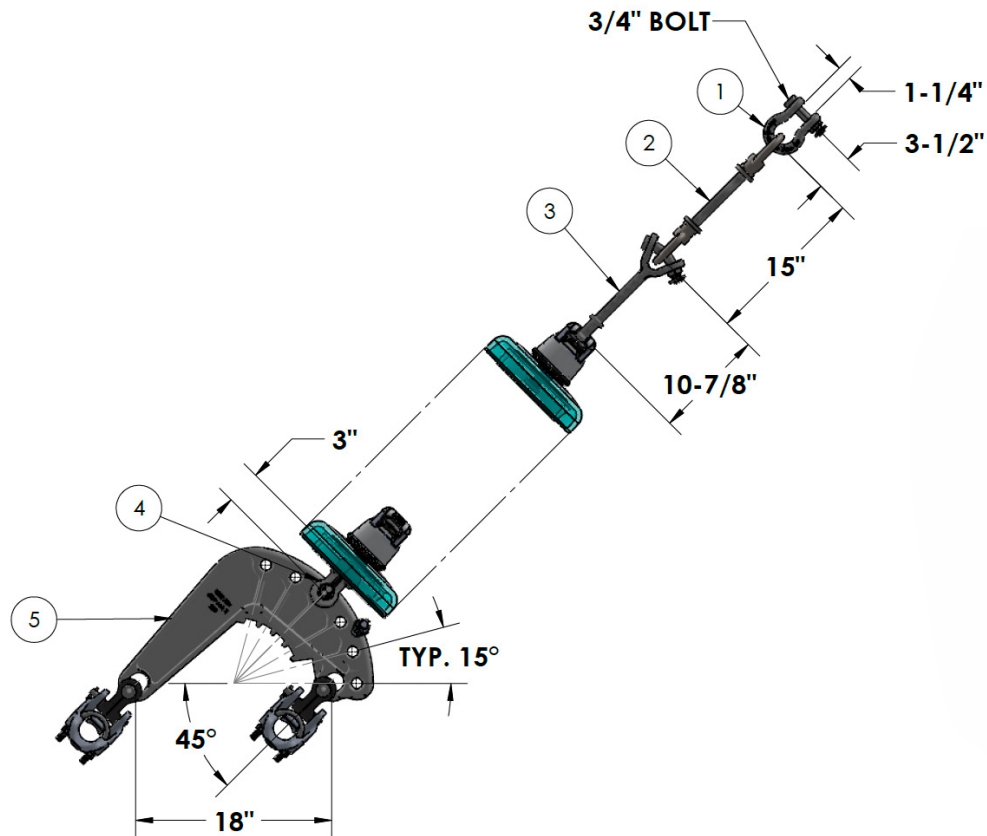


Connection Hardware Catalog#: **X2RA1YB50A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
4	ASM-641-2	50k	Horizontal Turn Yoke Plate	1	Galvanized Ductile Iron
INS	S24080...	50k	50k Suspension	1	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

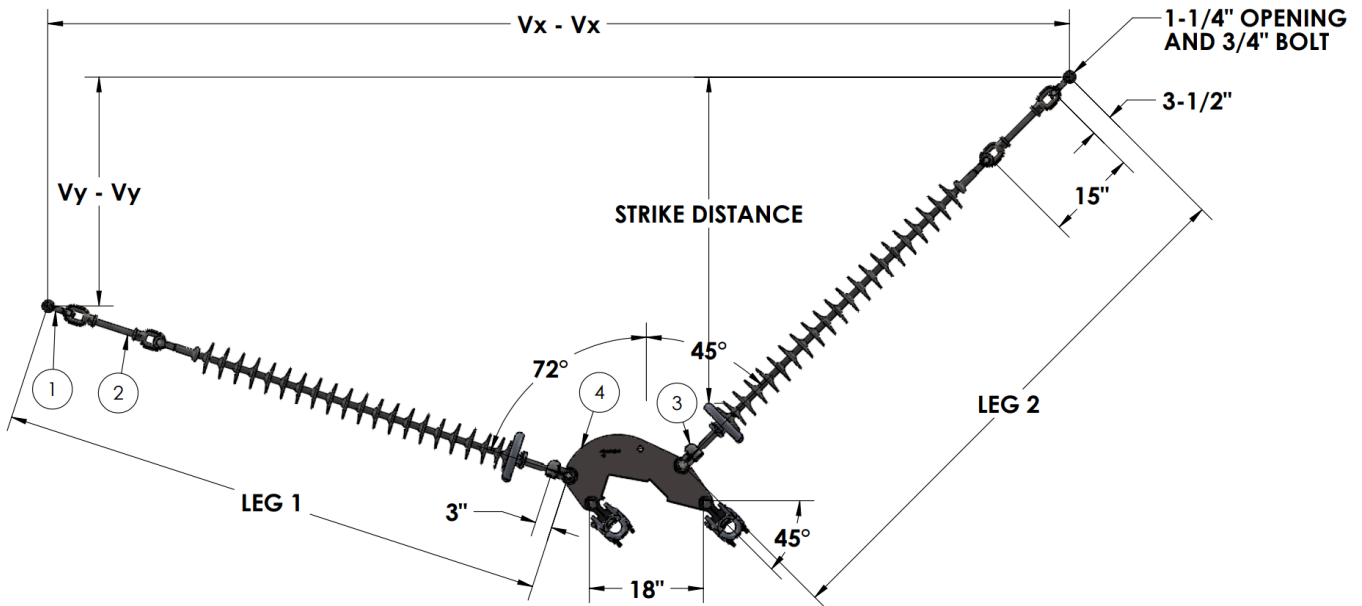


Connection Hardware Catalog#: **X2RA1SB50A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
4	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
5	ASM-641-2	50k	Horizontal Turn Yoke Plate	1	Galvanized Ductile Iron
INS	MG528Z / MG5211K	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Connection Hardware Catalog#: **Contact MPS**

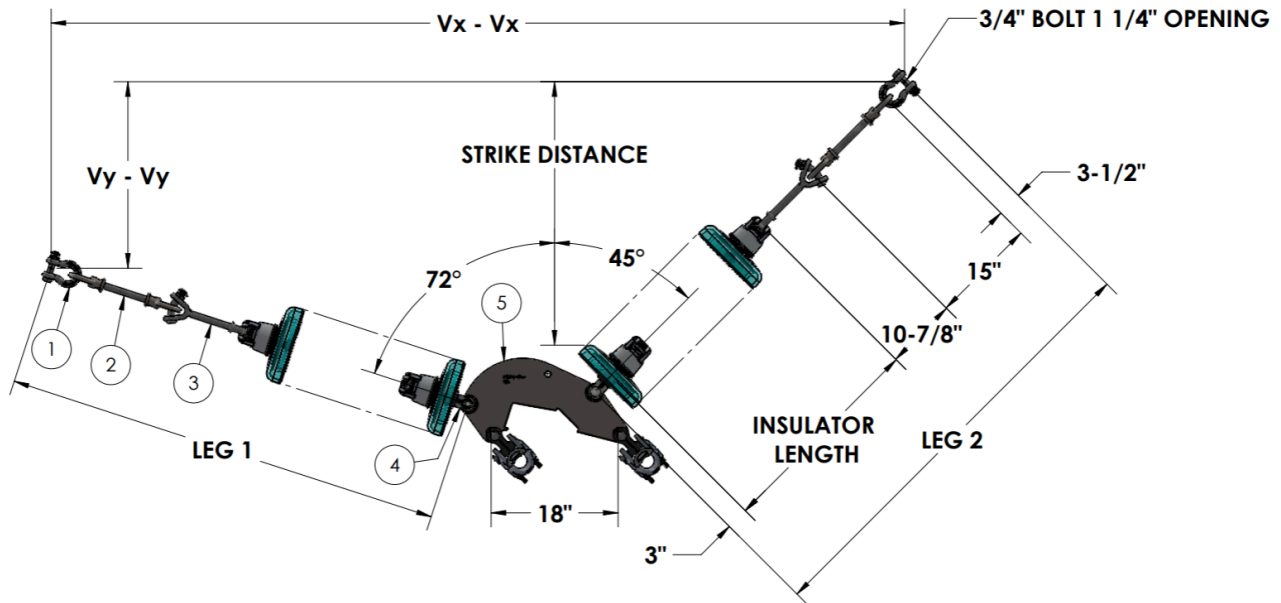
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	ASM-6168-41	50k	Angle V-String Yoke Plate	1	Galvanized Steel
INS	S24080...	50k	50k Suspension	2	Polymer Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension $V_x - V_x$ & $V_y - V_y$ and contact transmission@macleanpower.com
- For additional application notes, see page DCA2

DOUBLE CONDUCTOR HORIZONTAL RUNNING ANGLE V-STRING ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Ceramic Insulator



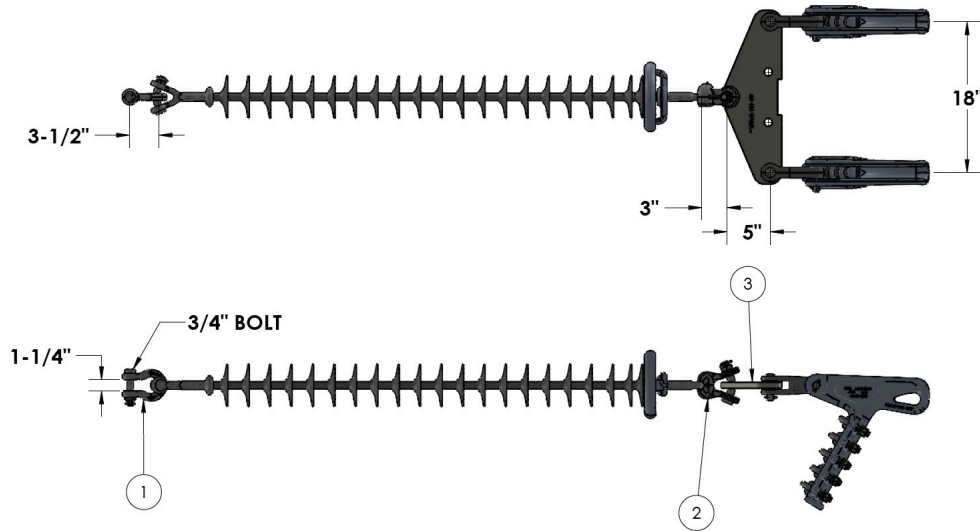
Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
5	ASM-6168-41	50k	Angle V-String Yoke Plate	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	LS-RYCI Series	-	HV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension $V_x - V_x$ & $V_y - V_y$ and contact transmission@macleanpower.com
- For additional application notes, see page DCA2





Connection Hardware Catalog#: **X2DE1YB50X2**

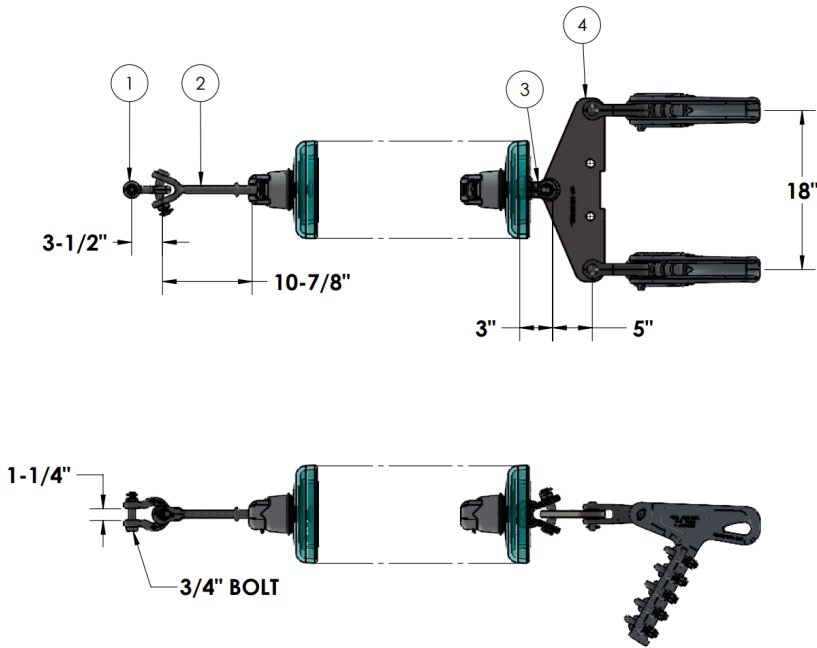
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
3	Y2DT060S1800	60k	Triangular Yoke Plate	1	Galvanized Ductile Iron
INS	S24080...	50k	50k Suspension	1	Polymer Insulator
CLAMP	ADE-RCEL Series	-	HV Deadend Clamp with Clevis	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR SINGLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **X2DE1SB50X2**

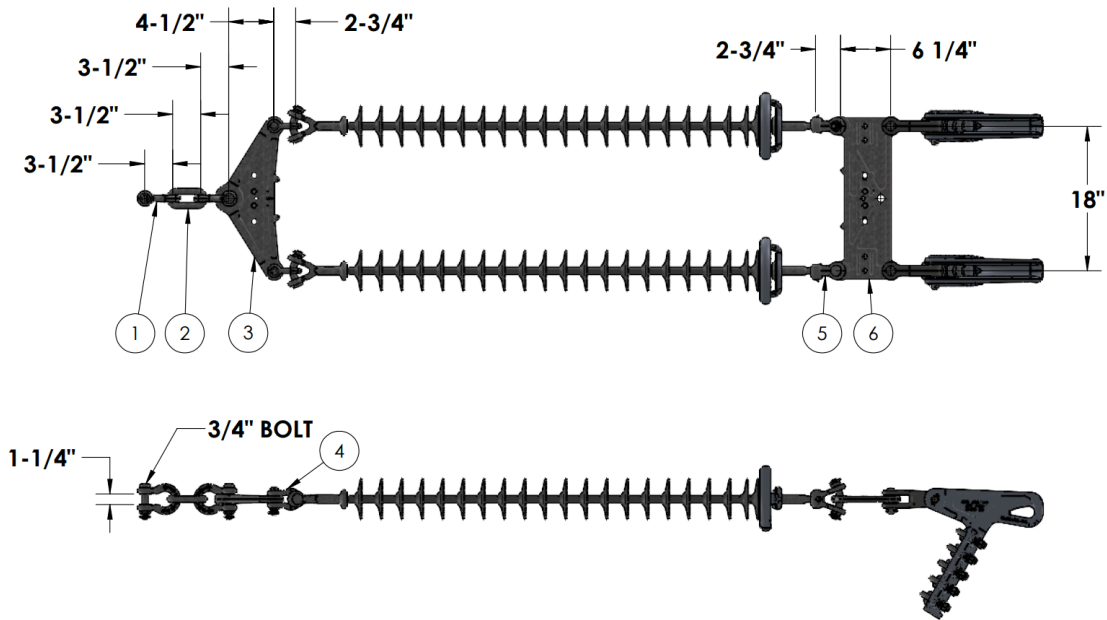
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
3	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
4	Y2DT060S1800	60k	Triangular Yoke Plate	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	ADE-RCEL Series	-	HV Deadend Clamp with Clevis	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**30k
Polymer Insulator**



Connection Hardware Catalog#: **X2DE2YB30X2**

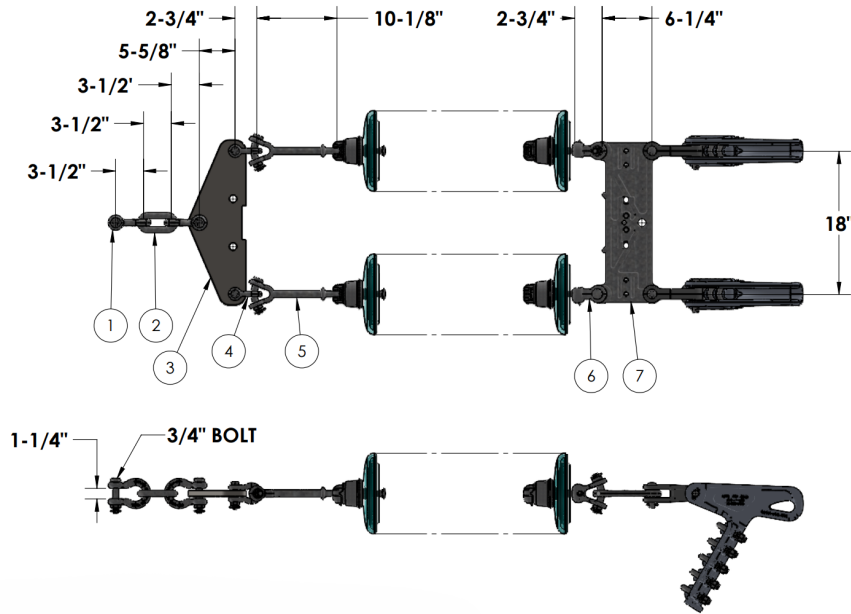
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Triangular Yoke Plate	1	Galvanized Ductile Iron
4	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
5	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
6	Y2DR060D1800	60k	Rectangular Yoke Plate	1	Galvanized Ductile Iron
INS	S54080...	30k	30k Suspension (25k S1)	2	Polymer Insulator
CLAMP	ADE-RCEL Series	-	HV Suspension Clamp with Clevis	2	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

**30k
Ceramic Insulator**



Connection Hardware Catalog#: **X2DE2SB30X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Triangular Yoke Plate	1	Galvanized Ductile Iron
4	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
5	YCBHL-65A	35k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
6	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
7	Y2DR060D1800	60k	Rectangular Yoke Plate	1	Galvanized Ductile Iron
INS	MG525Z	30k	ANSI 52-5 (J Type)	-	Ceramic Insulator
CLAMP	ADE-C Series	-	HV Deadend Clamp with Clevis	2	Aluminum Alloy

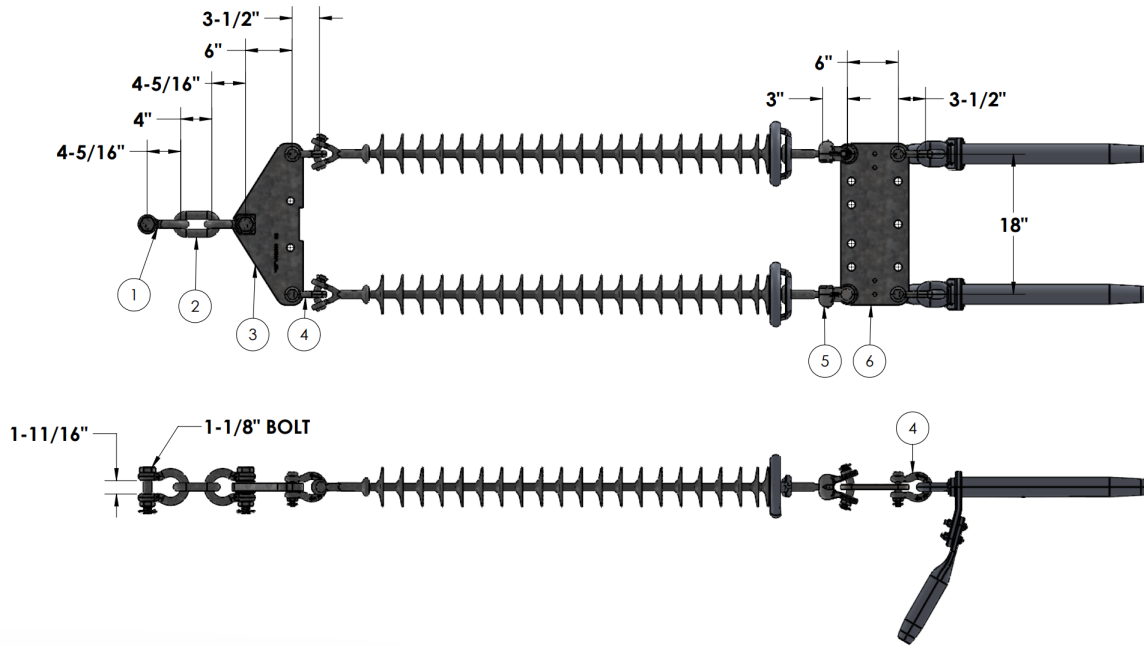
Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Polymer Insulator



Connection Hardware Catalog#: **X2DE2YB50A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-8	110k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
6	Y2DR100S1800	100k	Rectangular Yoke Plate	1	Galvanized Steel
INS	S24080...	50k	50k Suspension	2	Polymer Insulator
CLAMP	SDES Series	-	Compression Deadend	2	-

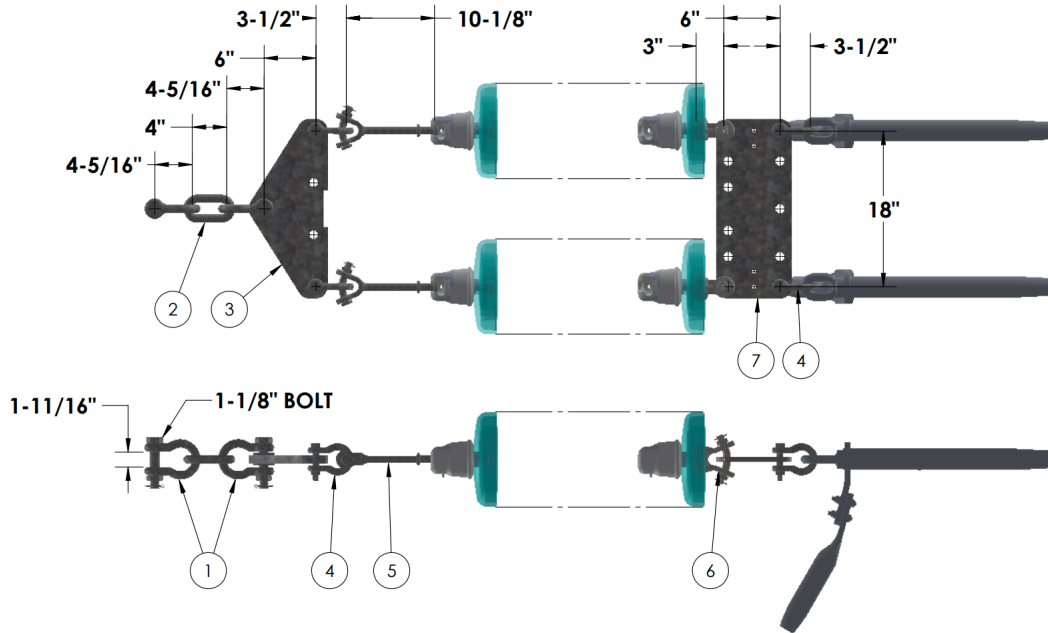
Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY HV [$\leq 230\text{kV}$]

50k
Ceramic Insulator



Connection Hardware Catalog#: **X2DE2SB50A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-8	110k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
6	SYCR-87	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
7	Y2DR100S1800	100k	Rectangular Yoke Plate	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	SDES Series	-	Compression Deadend	2	-

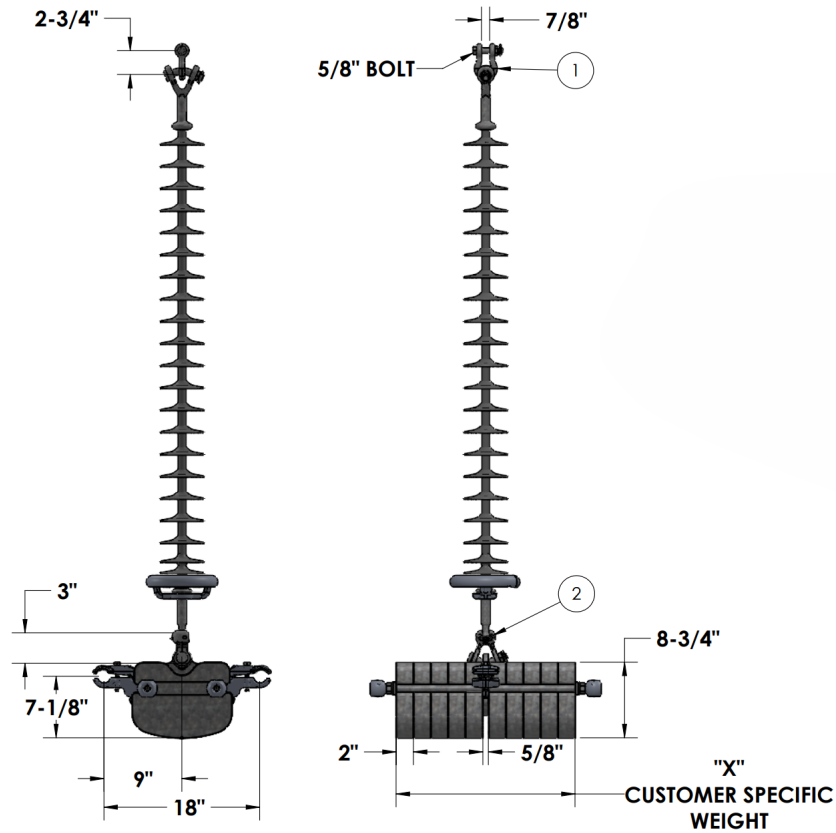
Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR HORIZONTAL JUMPER I-STRING ASSEMBLY WITH WEIGHTS HV [$\leq 230\text{kV}$]

**30k
Polymer Insulator**

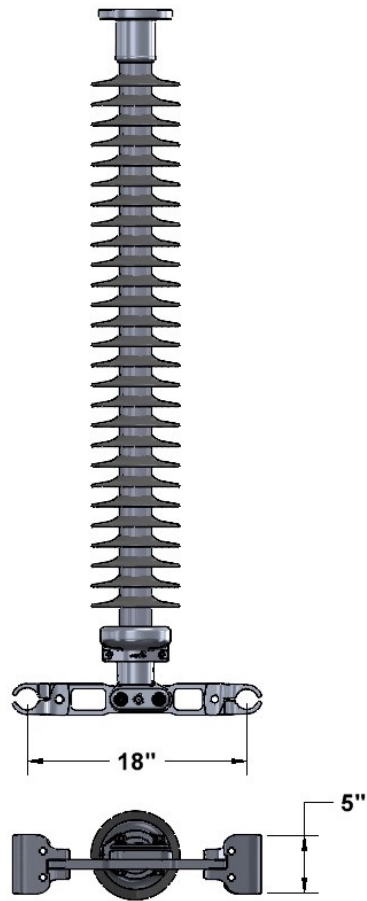


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-56	30k	52-5 Socket Clevis	1	Galvanized Ductile Iron
INS	S54080...	30k	30k Suspension (25k S1)	1	Polymer Insulator
CLAMP	C-8409 Series	-	HV Horizontal Jumper Clamp & Weights	1	-

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H25010...	-	H2 Reverse Shed Line Post	1	Polymer Insulator
CLAMP	LPH3D-18 Series	-	HV Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H29010...	-	H2 Gain Base Line Post	1	Polymer Insulator
CLAMP	LPH3D-18 Series	-	HV Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page DCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

MP



TRANSMISSION DOUBLE CONDUCTOR ASSEMBLIES

EHV [345kV - 500kV]



MPS Transmission Sales
transmission@macleanpower.com

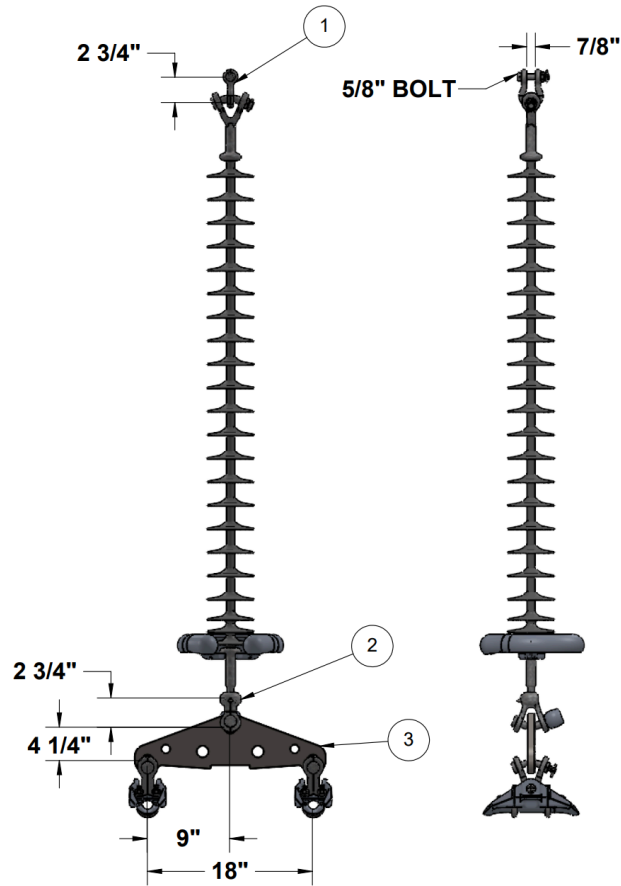
855.MPS.SHIP

DOUBLE CONDUCTOR ASSEMBLIES EHV [345kV - 500kV]

APPLICATION NOTES

Application Notes:

- All assemblies are customizable; If you can't find exactly what you need in the catalog, reach out to transmission@macleanpower.com for immediate support for your project
- Insulator (Item "INS") supplied separately from connection hardware catalog number
- Clamps (Item "CLAMP") supplied separately from connection hardware catalog number
- Additional conductor hardware, such as armor rod, also supplied separately from connection hardware catalog number
- 30K rated hardware assemblies compatible with 25K and 30K insulators
- 50K rated hardware assemblies compatible with 50K insulators
- Insulator section contains all detailed specs and options
- Conductor Hardware section contains all detailed specs and options
- Connection hardware with "-S" suffix includes sphere nuts = corona free hardware



Connection Hardware Catalog#: **X3SS1YB30X2**

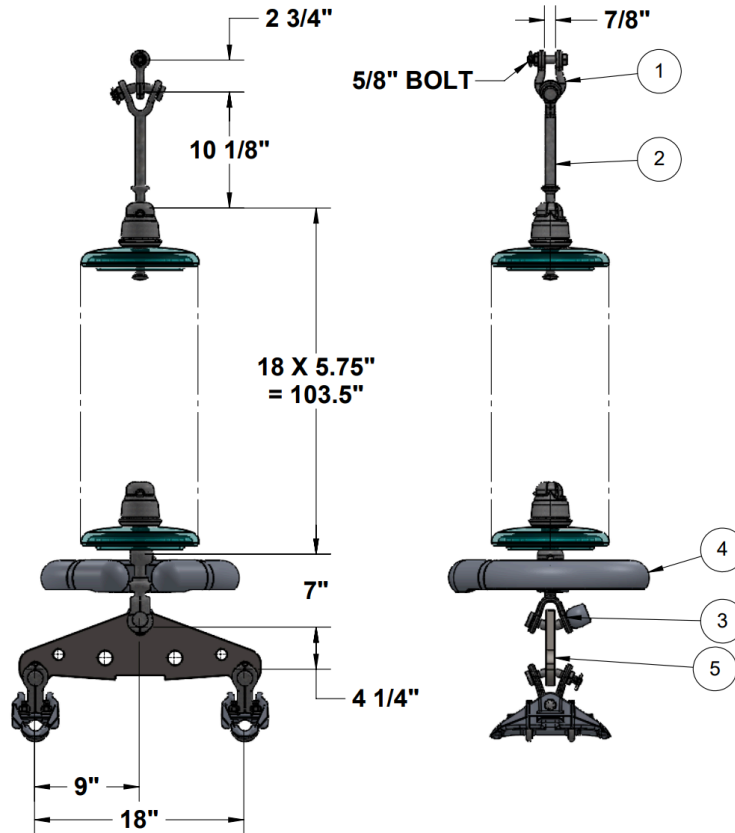
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-56-S	30k	52-5 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
3	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S54080...VB	30k	30k Suspension (25k S1) with 12" CR	1	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR HORIZONTAL I-STRING ASSEMBLY EHV [345kV - 500kV]

**30k
Ceramic Insulator**



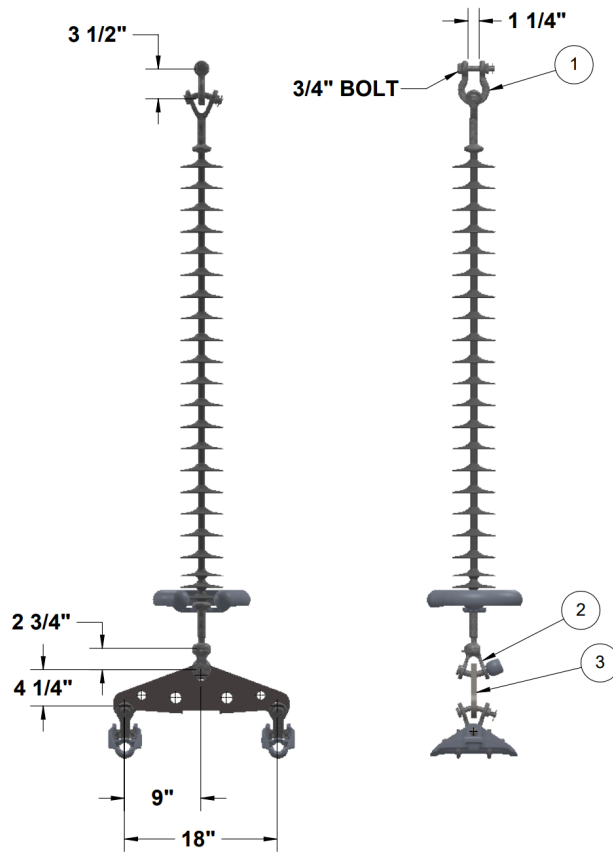
Connection Hardware Catalog#: **X3SS1SB30X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-65A	30k	Y-Clevis Ball Hot Line 52-3/5	1	Galvanized Forged Steel
3	SYCRL-56-S	30k	52-5 Socket Y-Clevis Rotated - CR	1	Galvanized Ductile Iron
4	CR16/18-17 DUL	-	17" Corona Ring	1	Aluminum Alloy
5	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	18	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



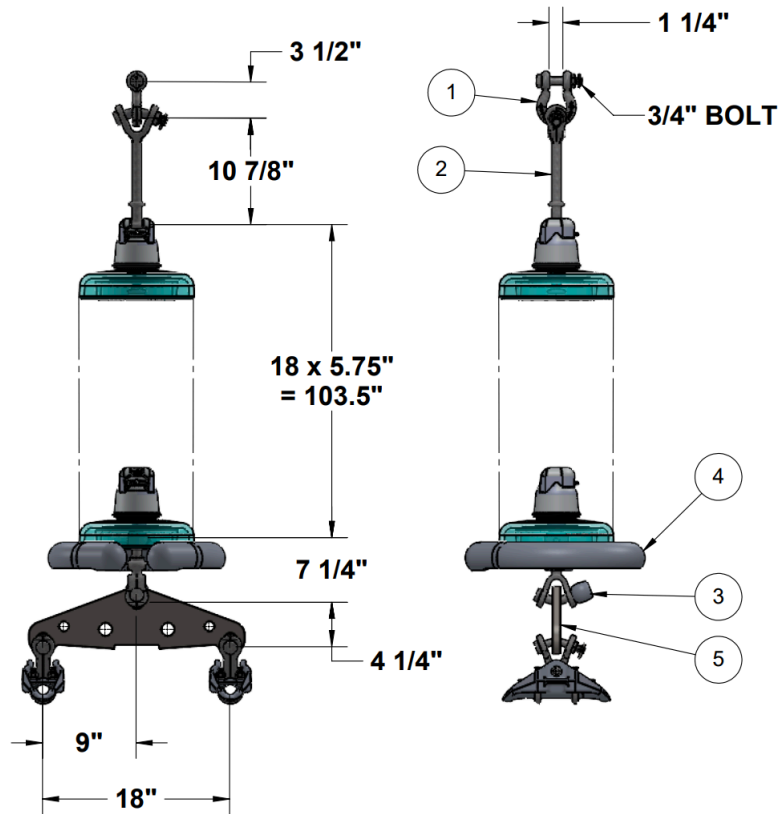


Connection Hardware Catalog#: **X3SS1YB50X2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	50k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
3	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	S24080...VB	50k	50k Suspension with 12" CR	1	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Connection Hardware Catalog#: **X3SS1SB50X2**

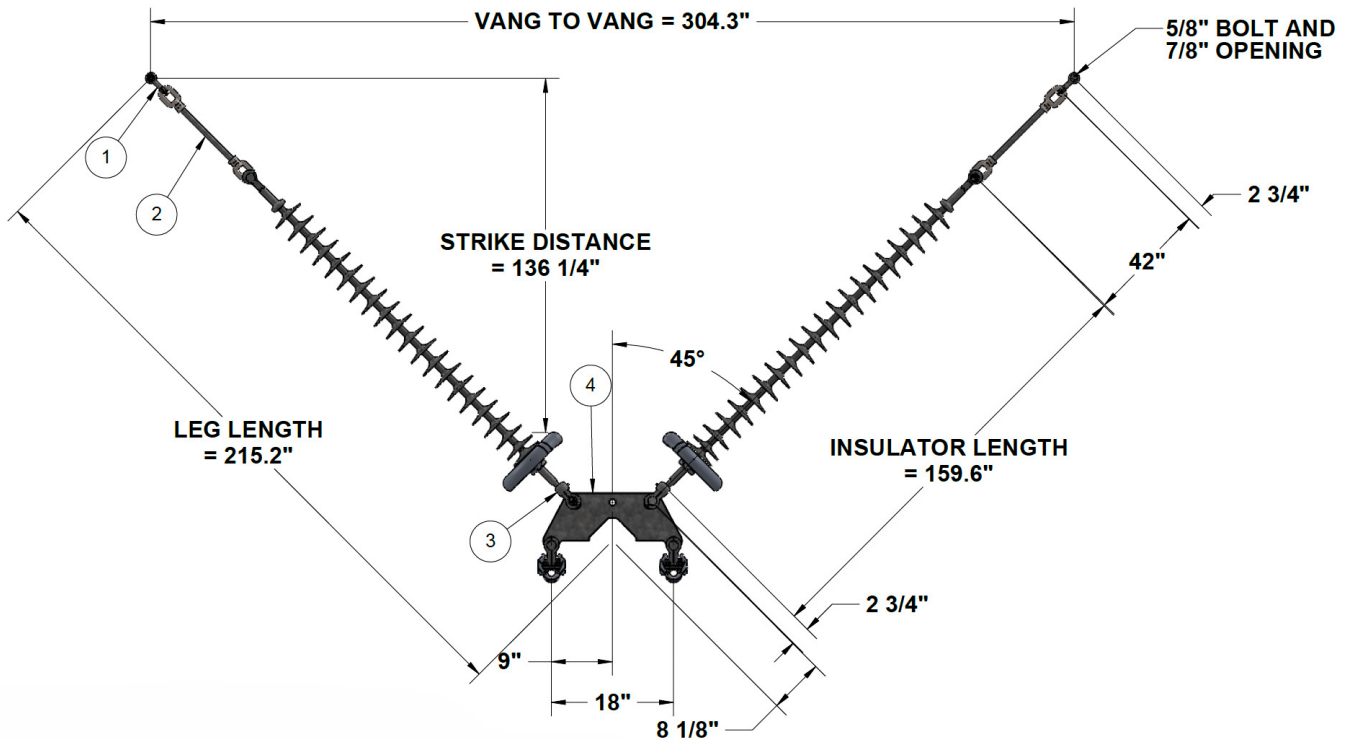
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	50k	Anchor Shackle	1	Galvanized Forged Steel
2	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
3	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated - CR	1	Galvanized Ductile Iron
4	CR24/32-17	-	17" Corona Ring	1	Aluminum Alloy
5	Y2TT050S1800	50k	Yoke Plate Horizontal	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	18	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR HORIZONTAL V-STRING ASSEMBLY EHV [345kV - 500kV]

**30k
Polymer Insulator**



Connection Hardware Catalog#: **X3VS2YB30A2-4542**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-42	36k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-56	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y2VS050S1845	50k	V-String Yoke	1	Galvanized Steel
INS	S54080148VBSS056	30k	30k Suspension (25k S1) with 12" CR	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

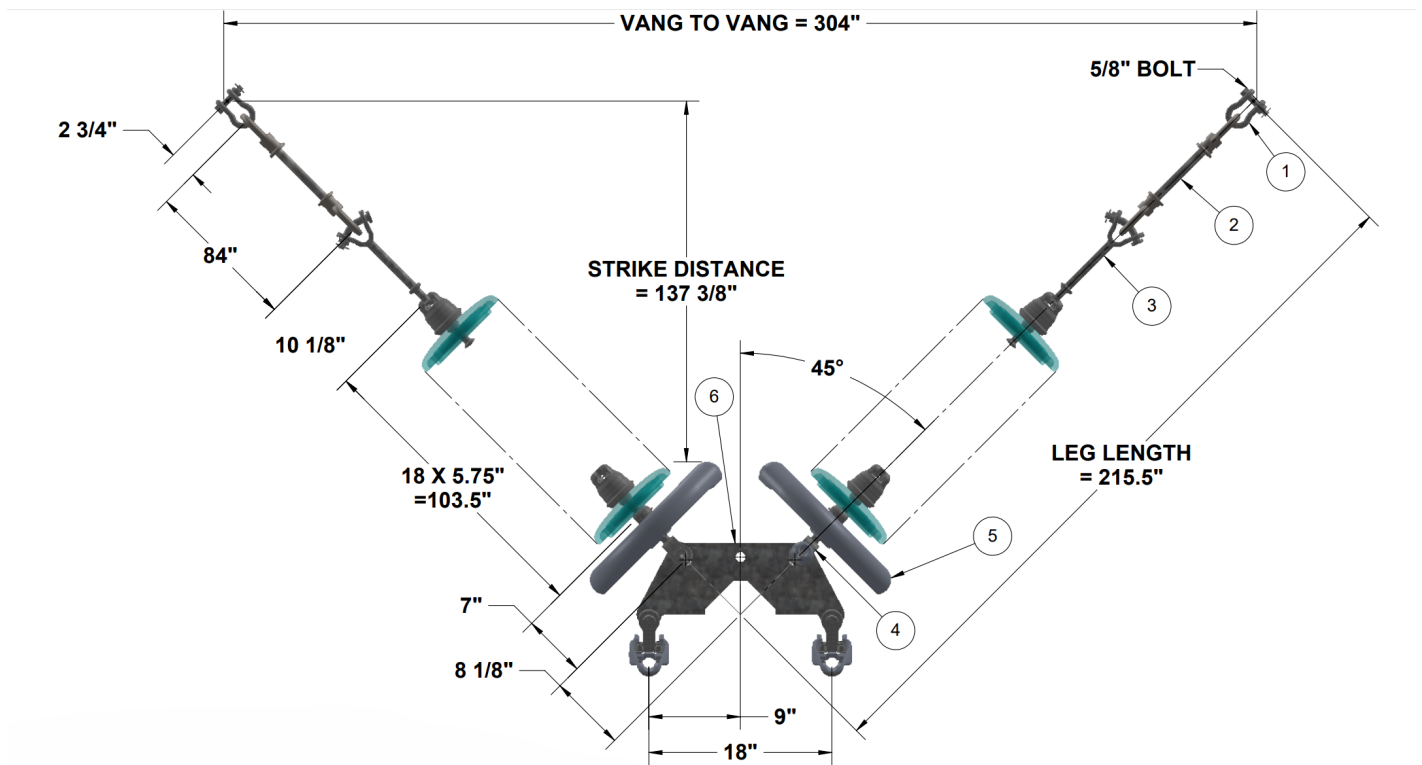
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR HORIZONTAL V-STRING ASSEMBLY EHV [345kV - 500kV]

**30k
Ceramic Insulator**



Connection Hardware Catalog#: **X3VS2SB30C2-4584**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-84	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-65A	30k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
4	SYCRL-56-S	30k	52-5 Socket Y-Clevis Rotated - CR	2	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
6	Y2VS050S1845	50k	V-String Yoke	1	Galvanized Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	36	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

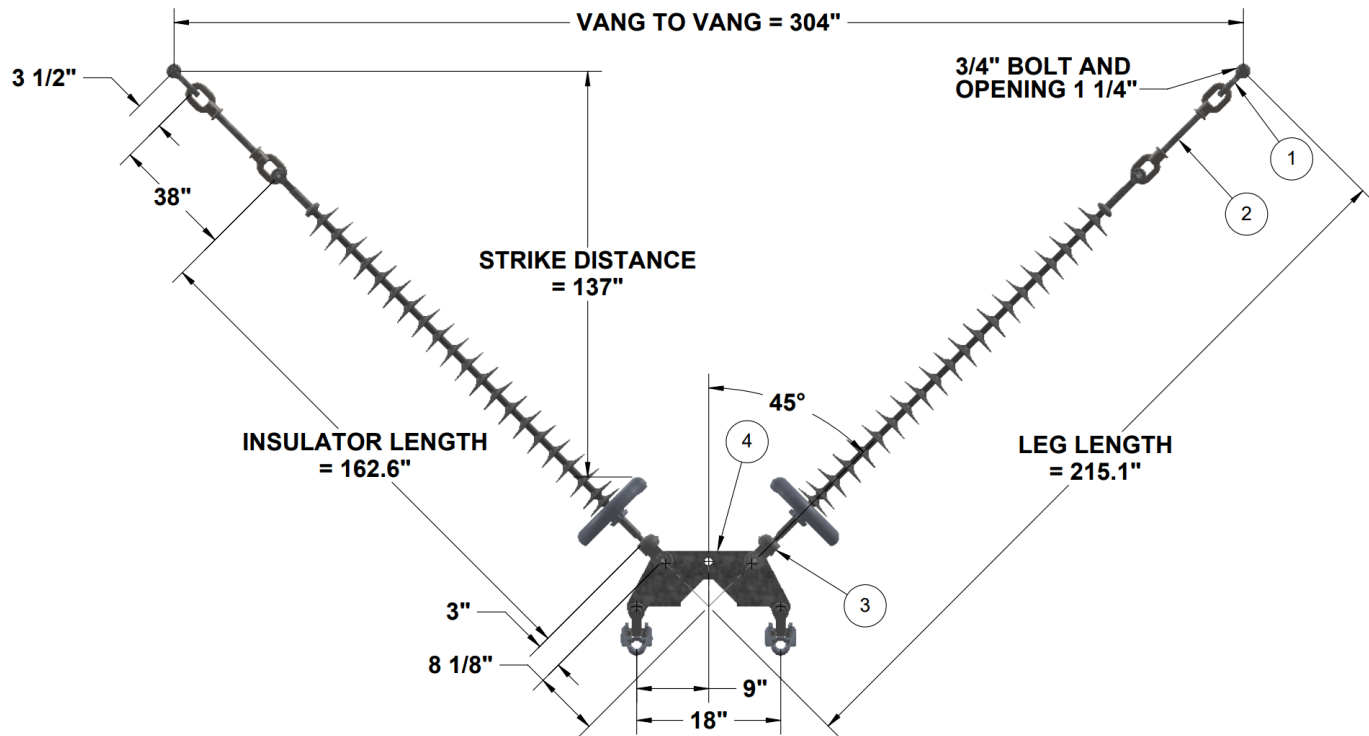
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR HORIZONTAL V-STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **X3VS2YB50A2-4538**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-38	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y2VS050S1845	50k	V-String Yoke	1	Galvanized Steel
INS	S24080148VBSS056	50k	50k Suspension with 12" CR	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

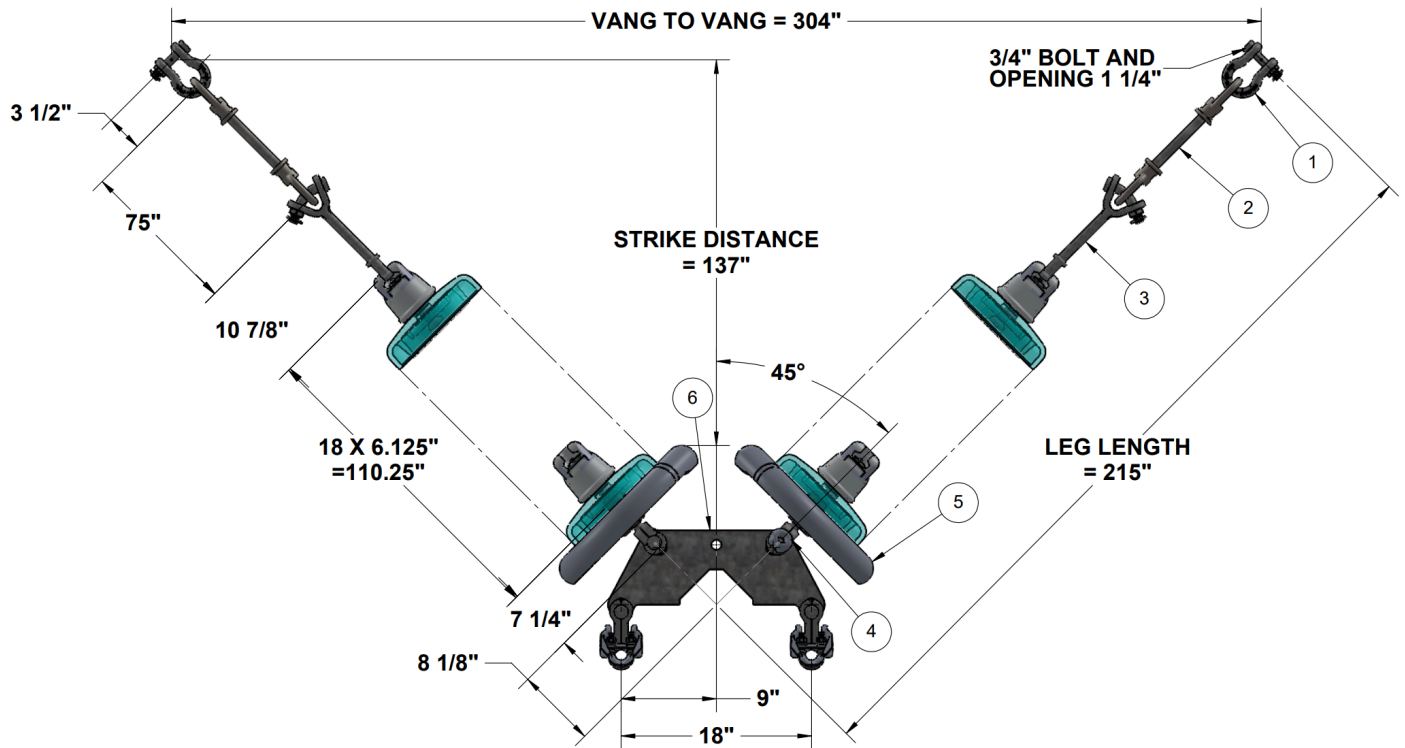
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR HORIZONTAL V-STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



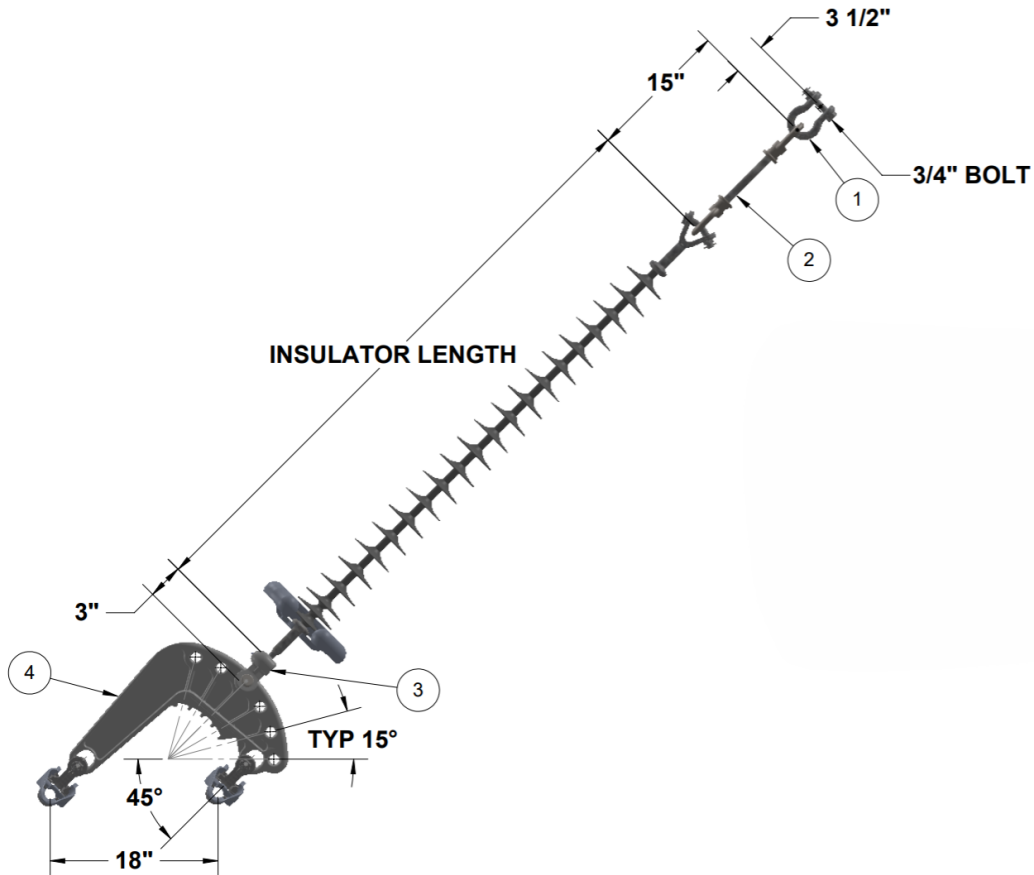
Connection Hardware Catalog#: **X3VS2SB50C2-4575**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-75	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated - CR	2	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
6	Y2VS050S1845	50k	V-String Yoke	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	36	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately





Connection Hardware Catalog#: **X3RA1YB50A2**

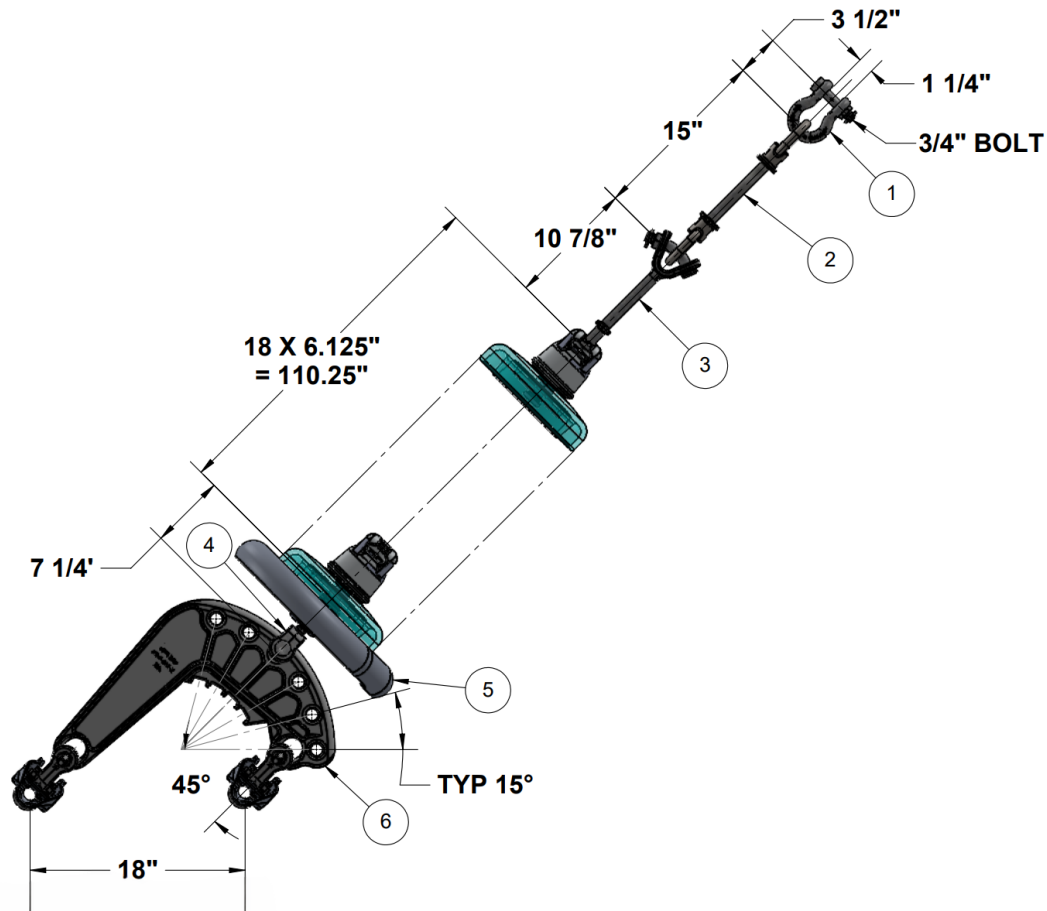
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
4	ASM-641-2	50k	Horizontal Turn Yoke Plate	1	Galvanized Ductile Iron
INS	S24080....VB	50k	50k Suspension	1	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR RUNNING ANGLE ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



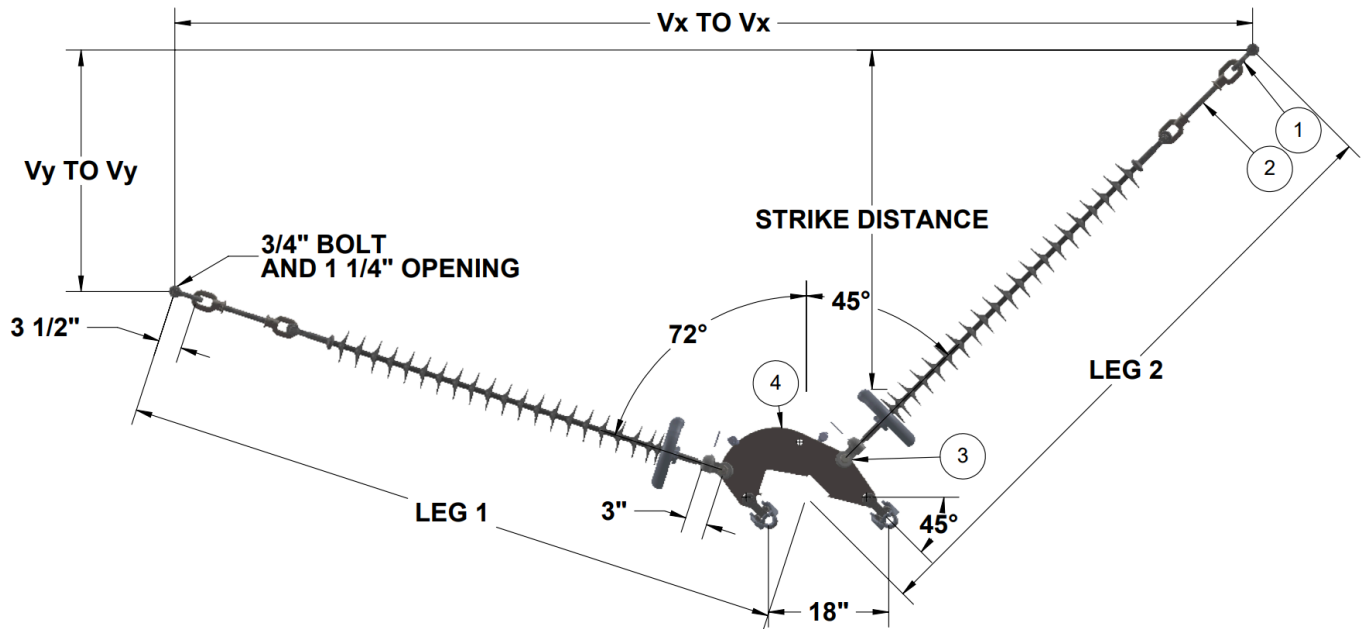
Connection Hardware Catalog#: **X3RA1SB50C2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	1	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated - CR	1	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	1	Aluminum Alloy
6	ASM-641-2	50k	Horizontal Turn Yoke Plate	1	Galvanized Ductile Iron
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately





Connection Hardware Catalog#: **Contact MPS**

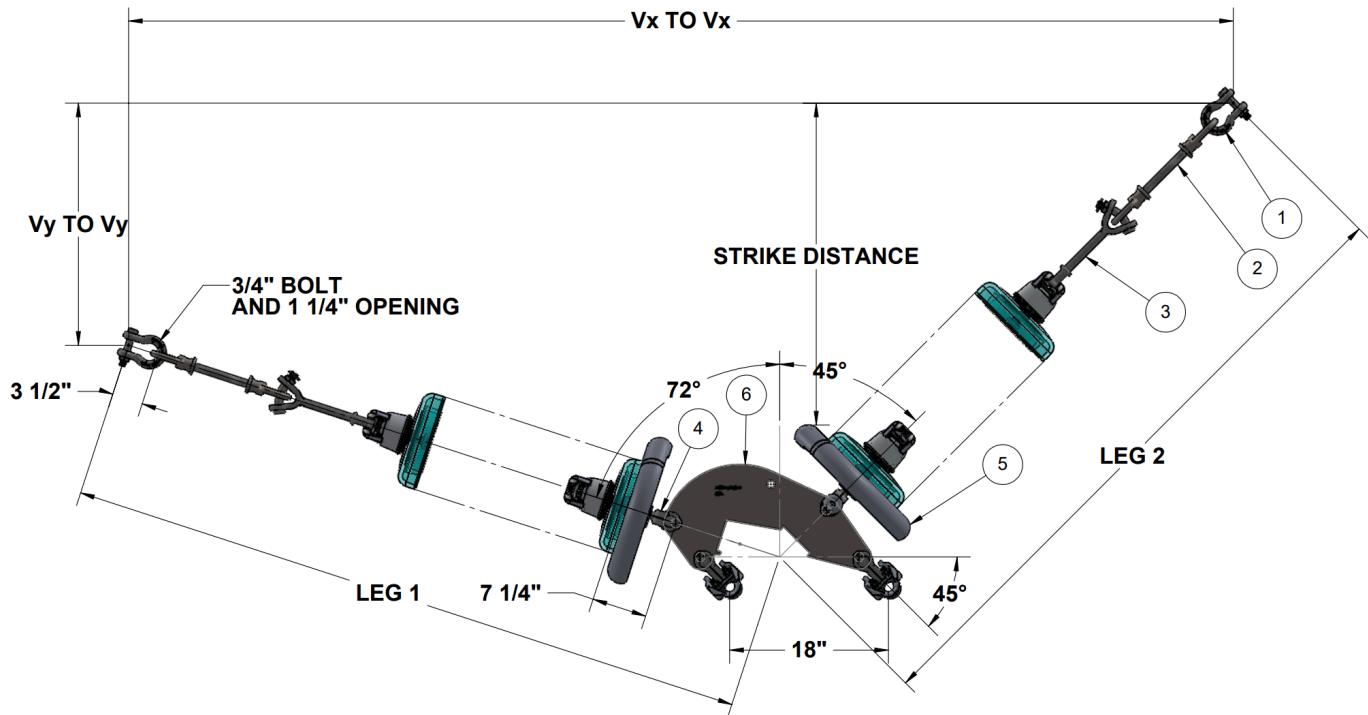
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-L	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	ASM-6168-41	50k	Angle V-String Yoke Plate	1	Galvanized Steel
INS	S24080...	50k	50k Suspension	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- LOO length will need to be stated upon order
- "L" stands for length (between 14" - 144")
- Insulator and clamp are not included in assembly and must be ordered separately

DOUBLE CONDUCTOR RUNNING ANGLE V-STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-L	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated - CR	2	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
6	ASM-6168-41	50k	Horizontal Turn Yoke Plate	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	2	Aluminum Alloy

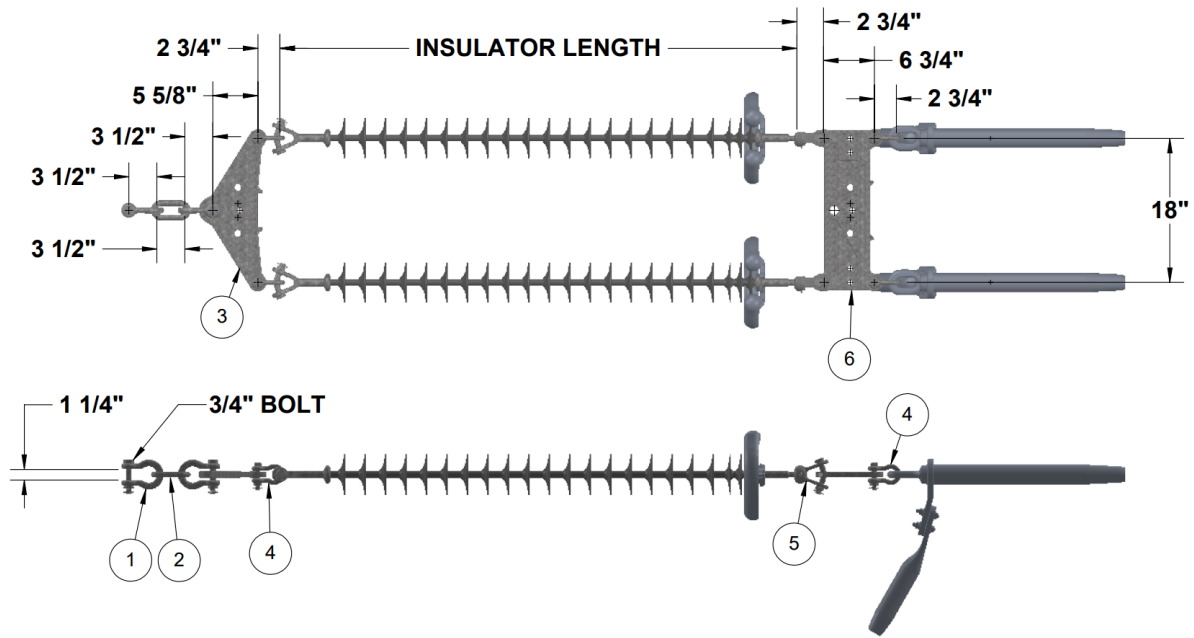
Application Notes:

- See page DCA26 for application notes
- LOO length will need to be stated upon order
- "L" stands for length (between 14" - 144")
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**30k
Polymer Insulator**



Connection Hardware Catalog#: **X3DE2YB30A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Triangular Yoke Plate	1	Galvanized Ductile Iron
4	ASH-55-BC	30k	Anchor Shackle	4	Galvanized Forged Steel
5	SYCR-56-S	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
6	Y2DR060D1800	60k	Rectangular Yoke Plate	1	Galvanized Ductile Iron
INS	S54080...	30k	30k Suspension (25k S1)	2	Polymer Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	2	-

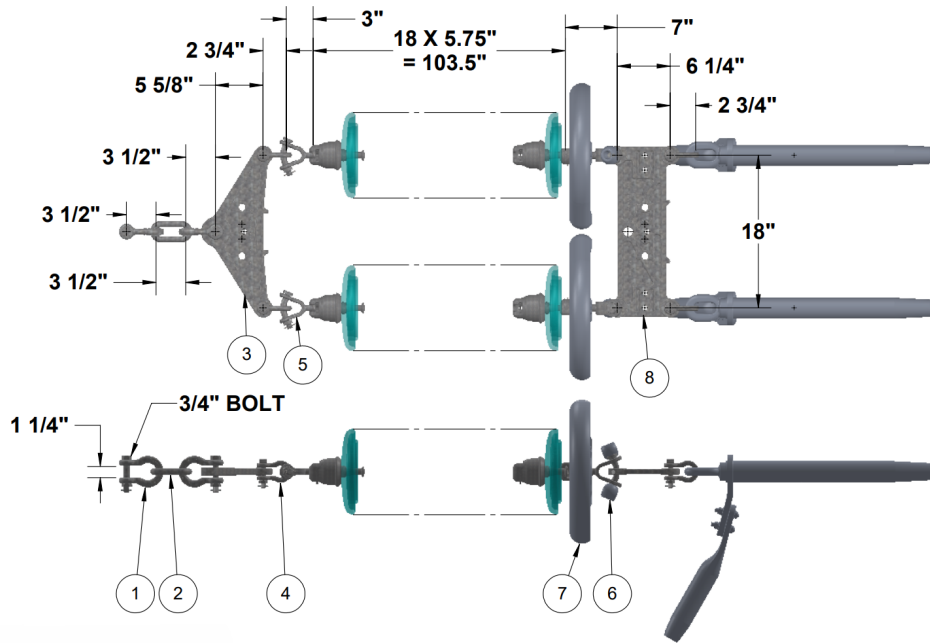
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**30k
Ceramic Insulator**



Connection Hardware Catalog#: **X3DE2SB30C2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-6	60k	Chain Link	1	Galvanized Forged Steel
3	Y2DT060D1800	60k	Triangular Yoke Plate	1	Galvanized Ductile Iron
4	ASH-55-BC	30k	Anchor Shackle	4	Galvanized Forged Steel
5	YCB-65A	35k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
6	SYCRL-56-S	30k	52-5 Socket Y-Clevis Rotated - CR	2	Galvanized Ductile Iron
7	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
8	Y2DR060D1800	60k	Rectangular Yoke Plate	1	Galvanized Ductile Iron
INS	MG525Z	30k	ANSI 52-5 (J Type)	36	Ceramic Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	2	-

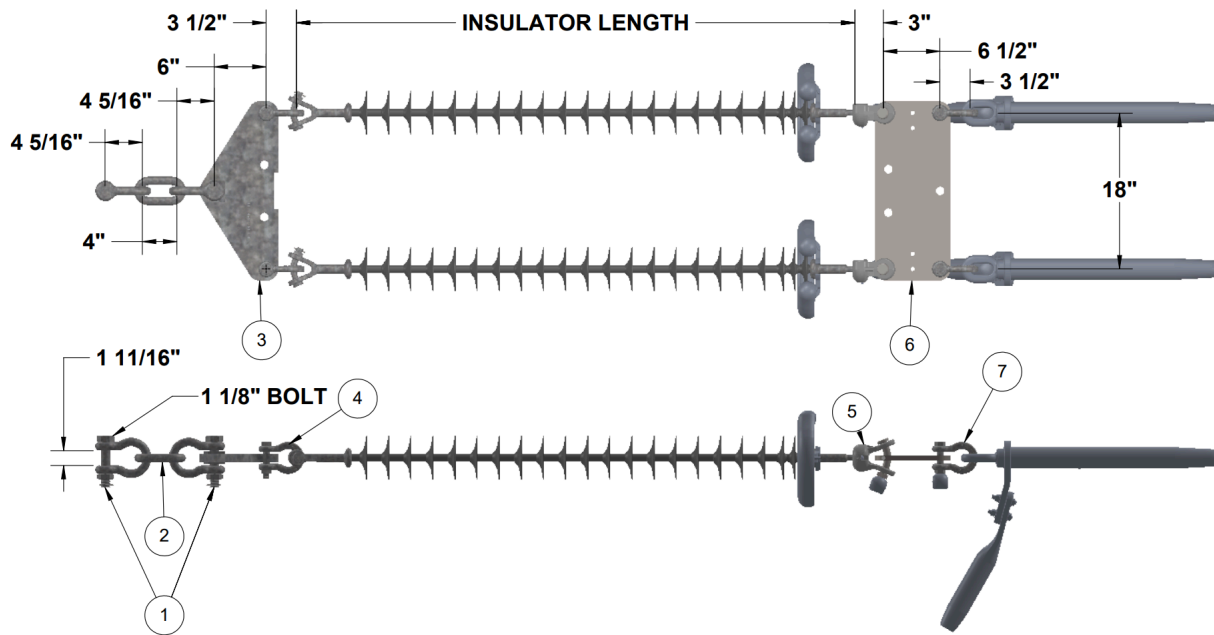
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **X3DE2YB50A2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-8	110k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
5	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
6	Y2DR100S1800	100k	Rectangular Yoke Plate	1	Galvanized Steel
7	ASH-66-BC-S	60k	Anchor Shackle	2	Galvanized Forged Steel
INS	S24080...	50k	50k Suspension	2	Polymer Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	2	-

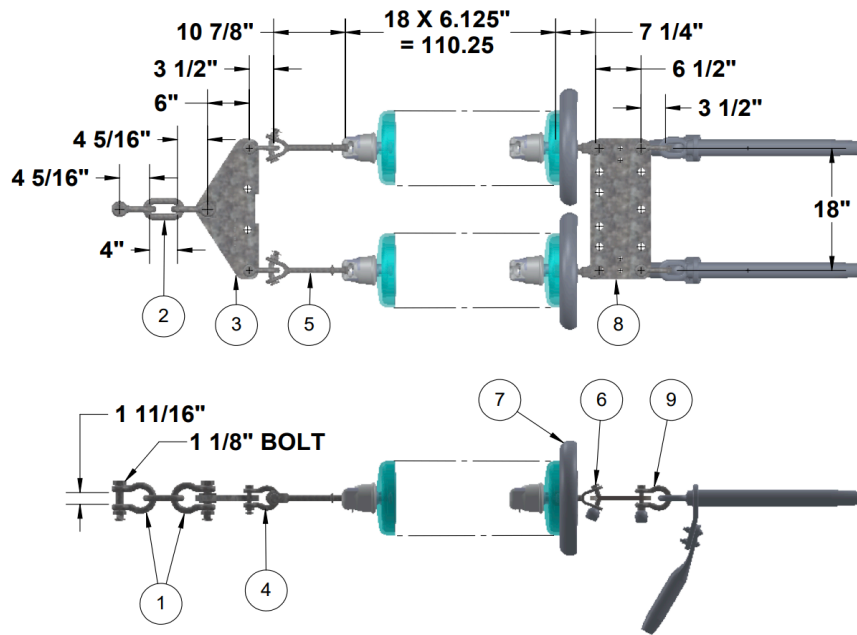
Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



DOUBLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



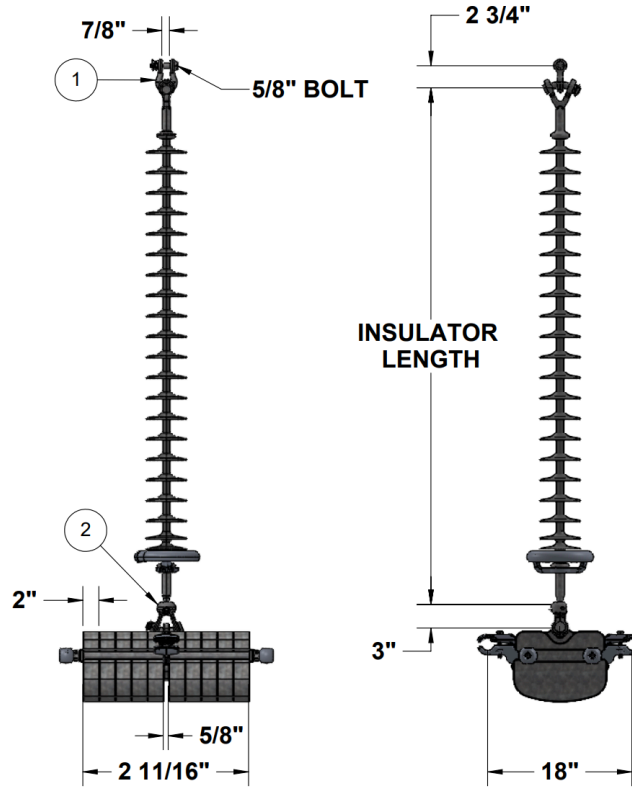
Connection Hardware Catalog#: **X3DE2SB50C2**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	2	Galvanized Forged Steel
2	CL-8	110k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
6	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated - CR	2	Galvanized Ductile Iron
7	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
8	Y2DR100S1800	100k	Rectangular Yoke Plate	1	Galvanized Steel
9	ASH-66-BC-S	60k	Anchor Shackle	2	Galvanized Forged Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	2	-

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately





Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-56	30k	52-5 Socket Clevis	1	Galvanized Ductile Iron
INS	S54080...	30k	30k Suspension (25k S1)	1	Polymer Insulator
CLAMP	C-8409 Series	-	HV Horizontal Jumper Clamp & Weight	1	-

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

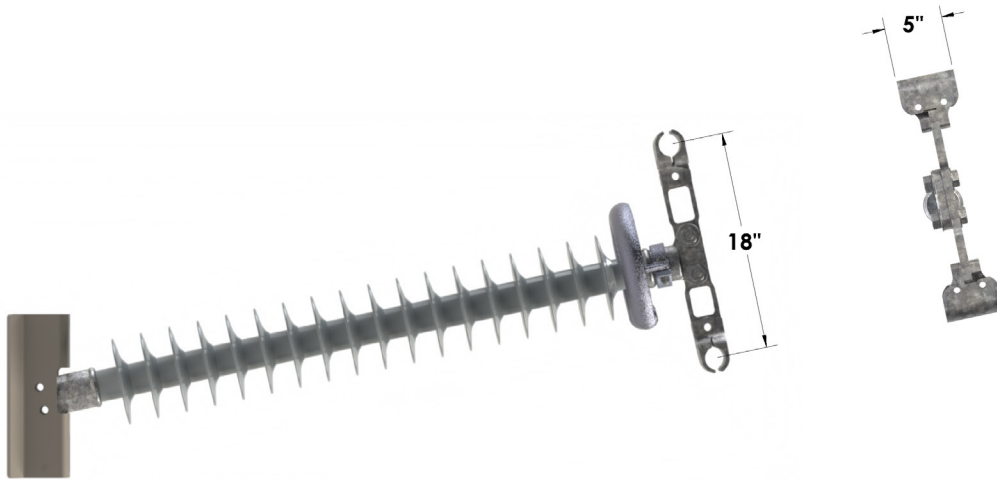


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H25010...	-	H2 Reverse Shed Line Post	1	Polymer Insulator
CLAMP	LPH3D-18 Series	-	HV Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



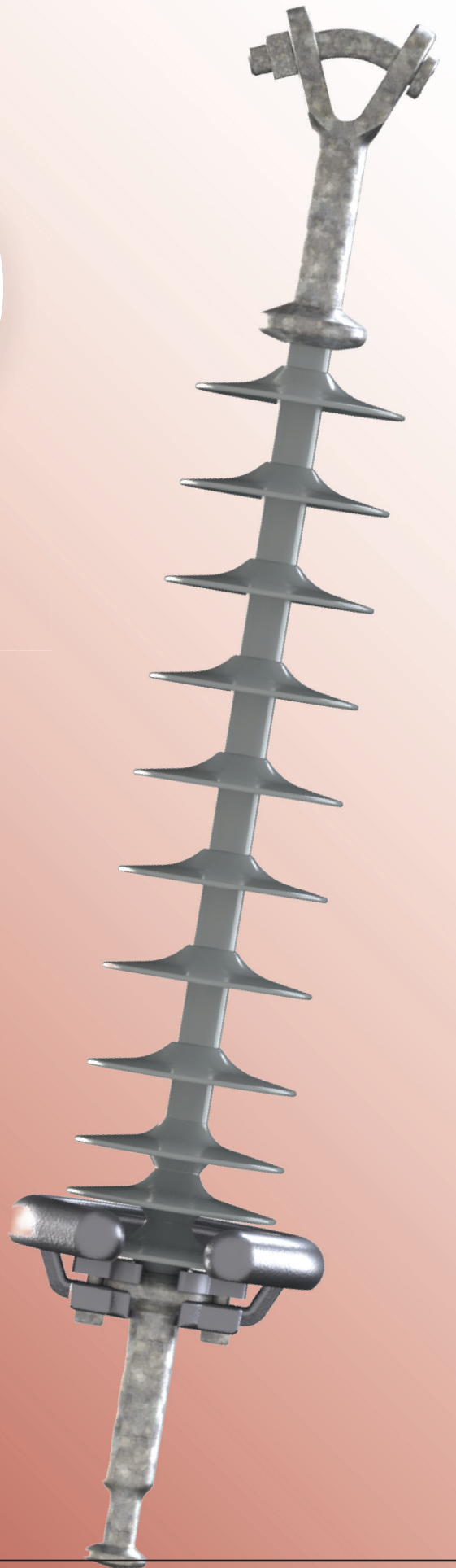
Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H29010...	-	H2 Gain Base Line Post	1	Polymer Insulator
CLAMP	LPH3D-18 Series	-	HV Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page DCA26 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

MP



TRANSMISSION TRIPLE CONDUCTOR ASSEMBLIES

EHV [345kV - 500kV]



MPS Transmission Sales
transmission@macleanpower.com

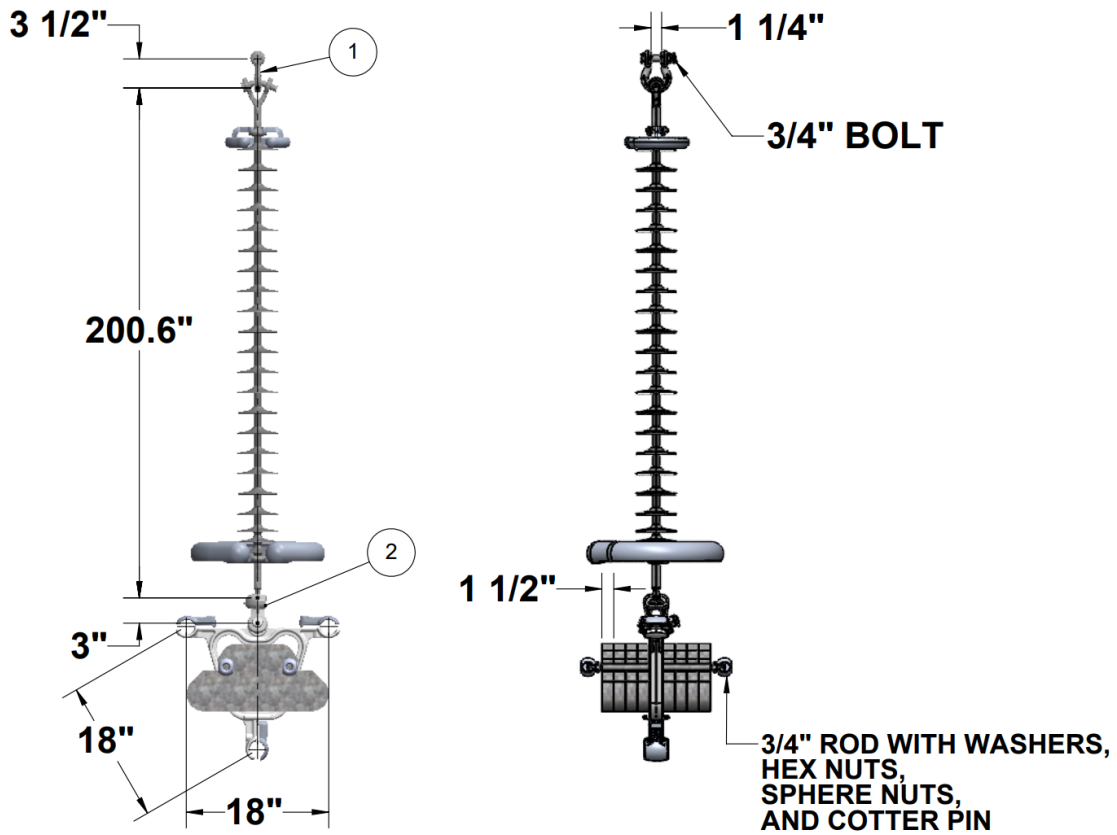
855.MPS.SHIP

TRIPLE CONDUCTOR ASSEMBLIES EHV [345kV - 500kV]

APPLICATION NOTES

Application Notes:

- All assemblies are customizable; If you can't find exactly what you need in the catalog, reach out to transmission@macleanpower.com for immediate support for your project
- Insulator (Item "INS") supplied separately from connection hardware catalog number
- Clamps (Item "CLAMP") supplied separately from connection hardware catalog number
- Additional conductor hardware, such as armor rod, also supplied separately from connection hardware catalog number
- 30K rated hardware assemblies compatible with 25K and 30K insulators
- 50K rated hardware assemblies compatible with 50K insulators
- Insulator section contains all detailed specs and options
- Conductor Hardware section contains all detailed specs and options
- Connection hardware with "-S" suffix includes sphere nuts = corona free hardware
- 150K rated hardware assemblies compatible with 50K or 80K insulators
 - 66K insulator strength acceptable for ceramics



Assembly shown for reference

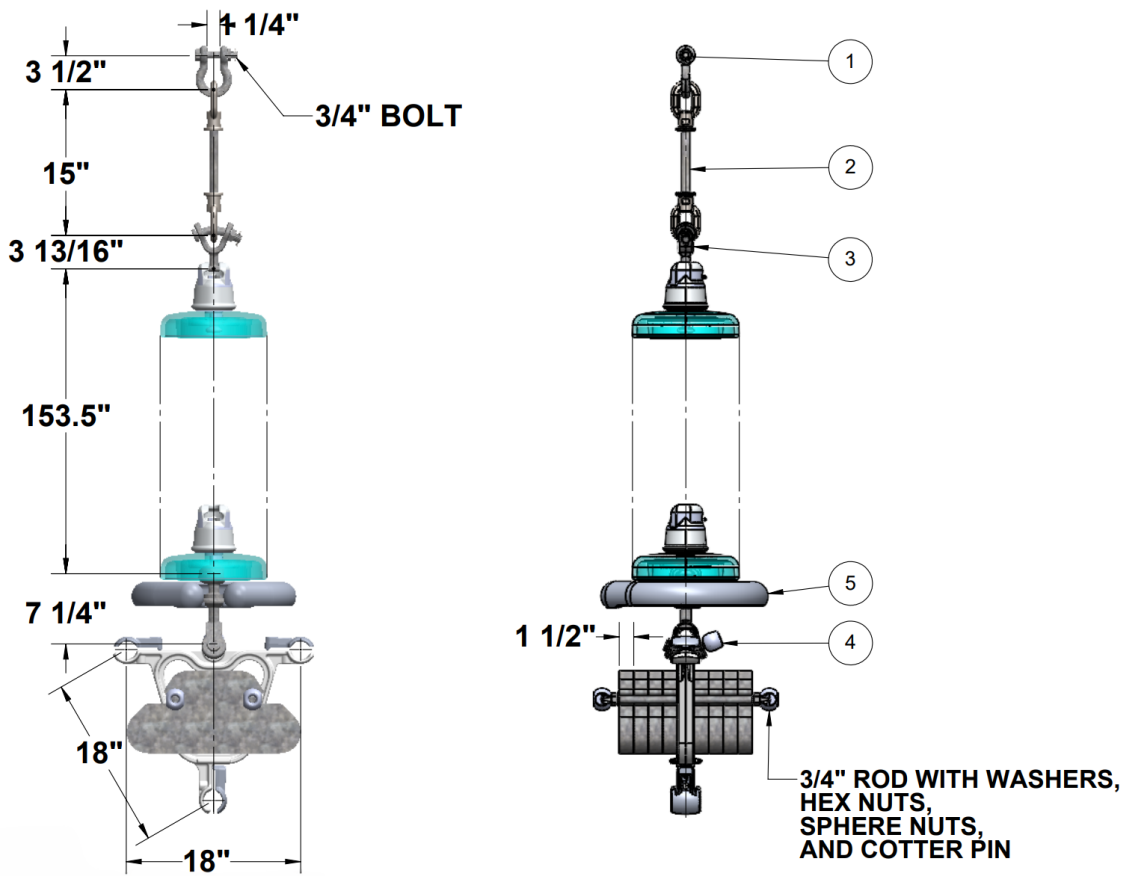
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	SYCR-87	50k	52-8/11 Socket Clevis	1	Galvanized Ductile Iron
INS	S24080...VV	50k	50k Suspension With 17" CR & 8" CR	1	Polymer Insulator
CLAMP	JY3-W Series	-	3 Conductor Jumper Yoke & Weight	1	-

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately
- Weight should be determined by end user, see page CDH40

TRIPLE CONDUCTOR I-STRING JUMPER ASSEMBLY WITH WEIGHTS EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **X3JW1SB50C3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-15	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	YCB-78	50k	Y-Clevis 52-8/11 Ball	1	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	3	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	1	Aluminum Alloy
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	JY3-W Series	-	3 Conductor Jumper Yoke & Weight	1	-

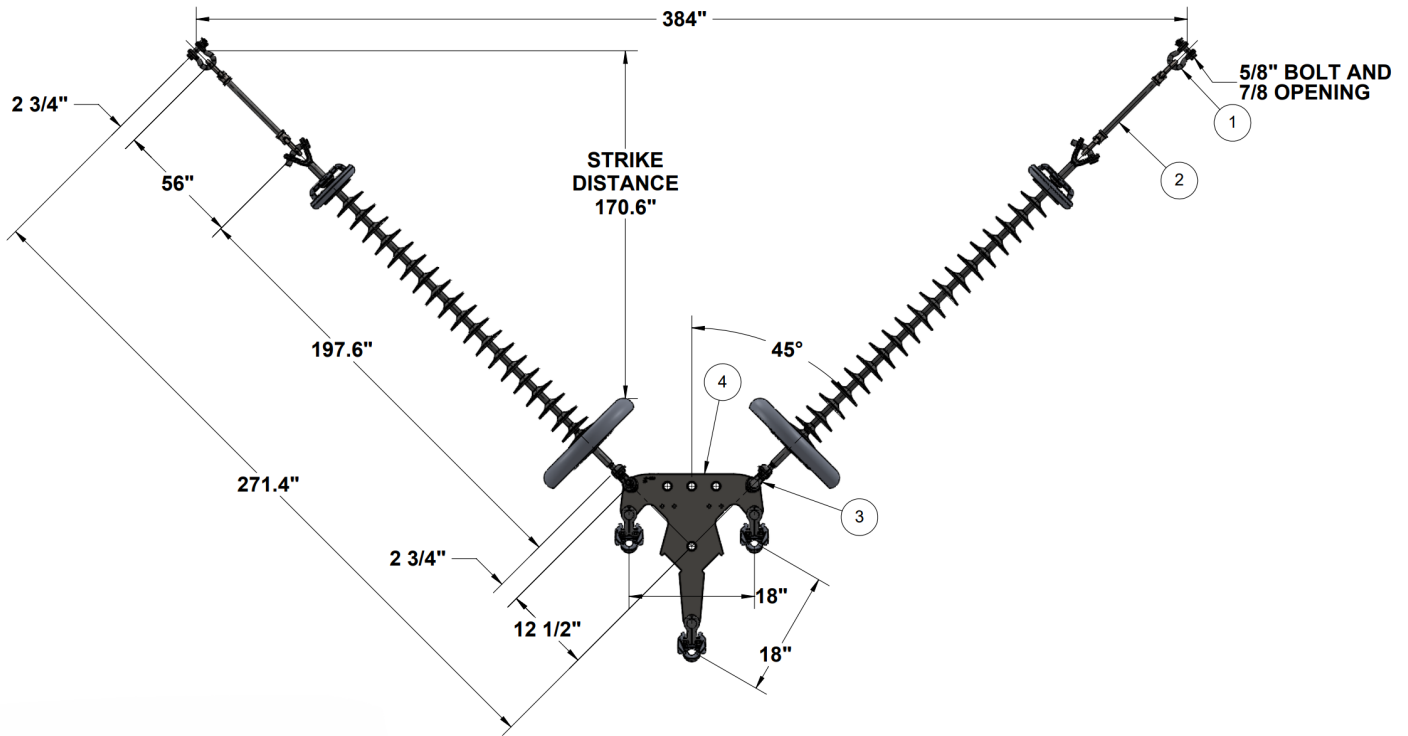
Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately
- Weight should be determined by end user, see page CDH40



TRIPLE CONDUCTOR V-STRING ASSEMBLY EHV [345kV - 500kV]

**30k
Polymer Insulator**

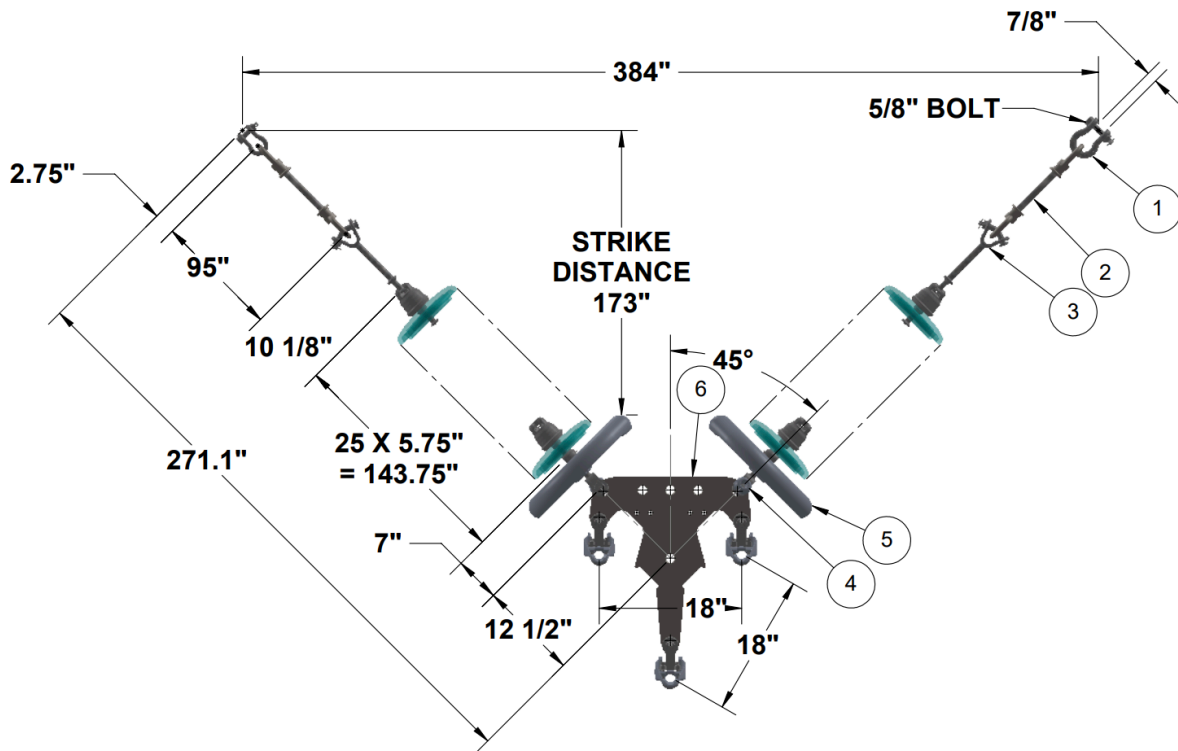


Connection Hardware Catalog#: **X3VS2YB30A3-4556**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-56	36k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-56-S	30k	52-5 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y3VS050S1845	50k	Yoke Plate 45 ° 3 Conductor	1	Galvanized Steel
INS	S54080186VV6S087	30k	30k Suspension with 17" CR & 8" CR	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

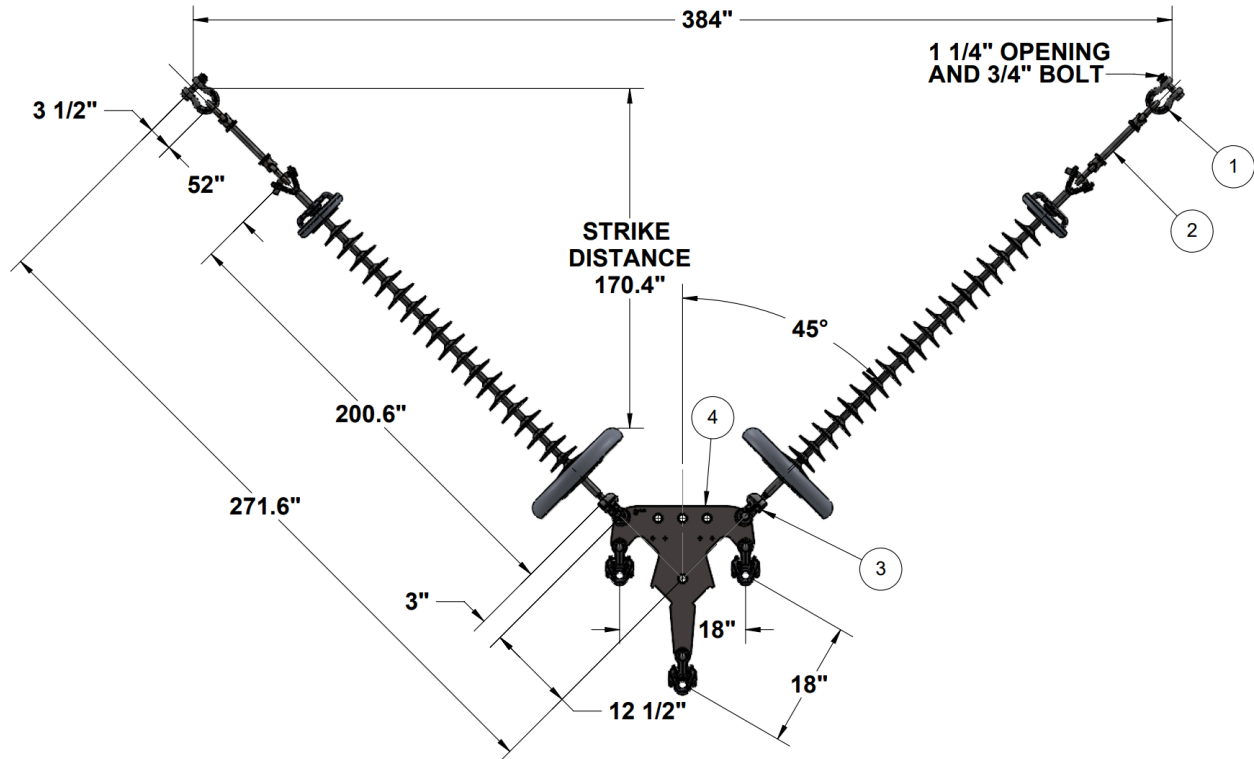


Connection Hardware Catalog#: **X3VS2YB50C3-4552**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-55-BC	30k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-36-95	36k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-65A	30k	Y-Clevis Ball Hot Line 52-3/5	2	Galvanized Forged Steel
4	SYCRL-56-S	30k	52-5 Socket Y-Clevis Rotated CR	2	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
6	Y3VS050S1845	50k	Yoke Plate 45 ° 3 Conductor	1	Galvanized Steel
INS	MG525Z	30k	ANSI 52-5 (J Type)	50	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Connection Hardware Catalog#: **X3VS2YB50A3-4552**

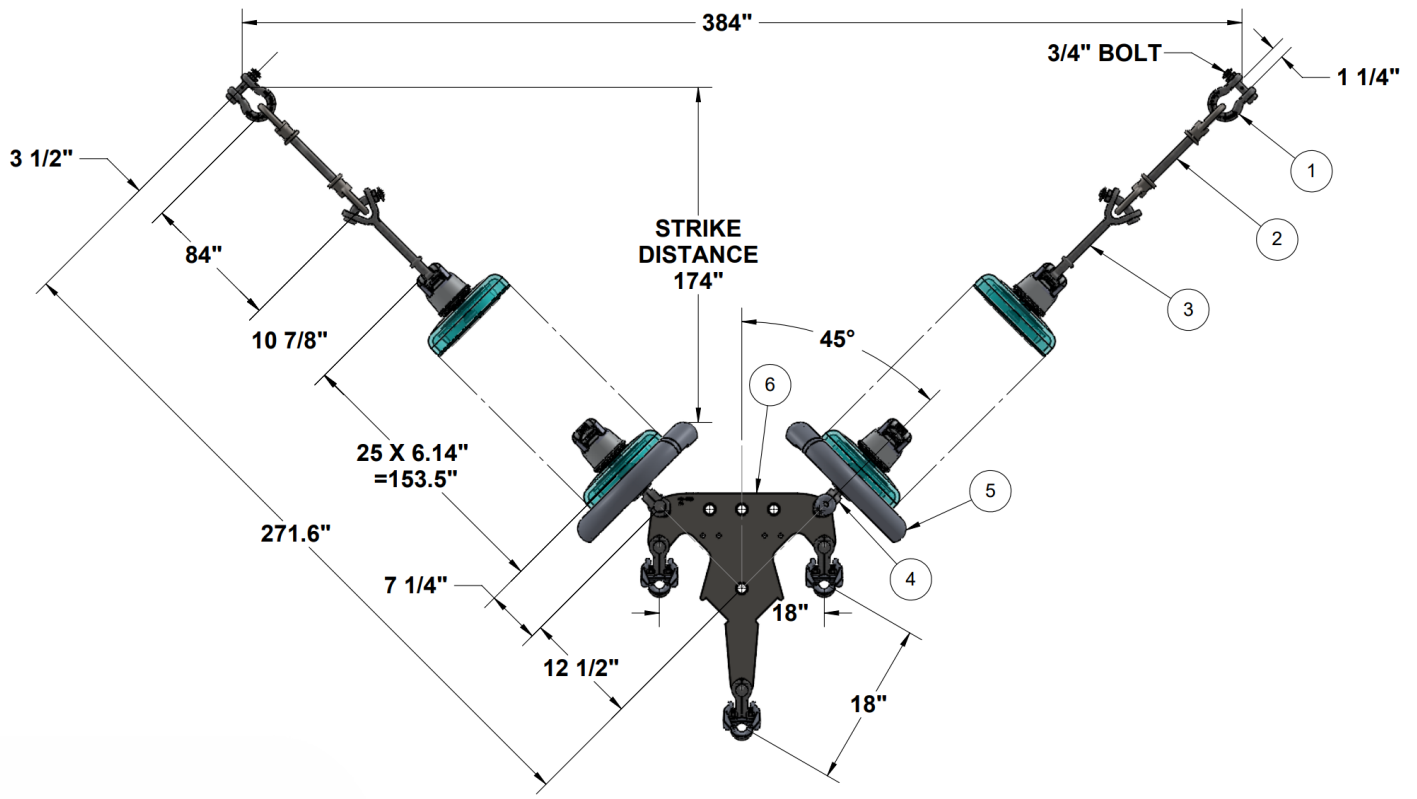
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-52	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y3VS050S1845	50k	Yoke Plate 45 ° 3 Conductor	1	Galvanized Steel
INS	S24080186VV6S087	50k	50k Suspension with 17" CR & 8" CR	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

TRIPLE CONDUCTOR V-STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **X3VS2SB50C3-4584**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-84	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	2	Galvanized Ductile Iron
5	CR24/32-17	-	17" Corona Ring	2	Aluminum Alloy
6	Y3VS050S1845	50k	Yoke Plate 45 ° 3 Conductor	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	50	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

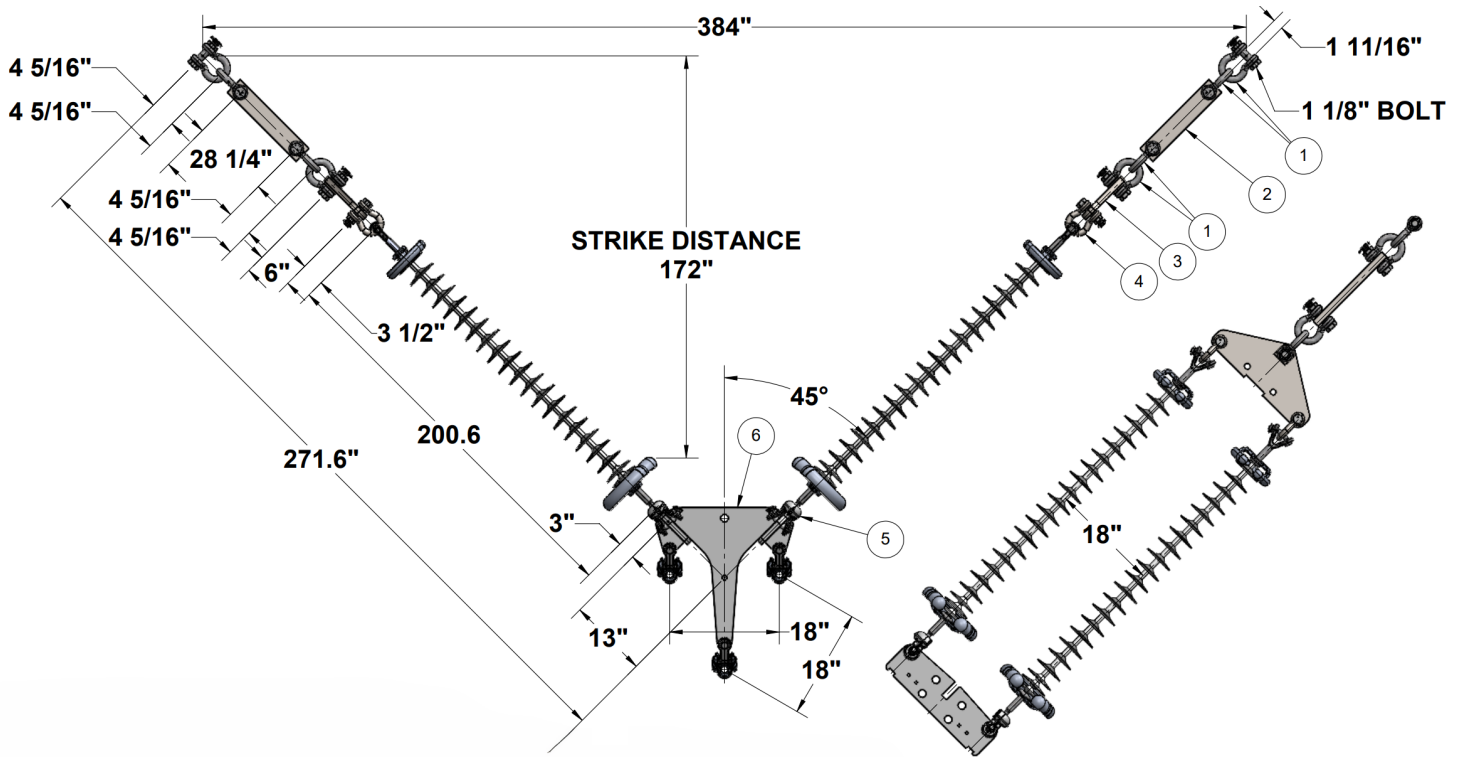
Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



TRIPLE CONDUCTOR V-STRING DOUBLE STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **X3VS4YB50A3-452825**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	8	Galvanized Forged Steel
2	EL10009092825	100k	Steel Strap	2	Galvanized Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	2	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	SYCR-87-S	50k	90" Socket Y-Clevis	4	Galvanized Ductile Iron
6	ASM-8085-2	100k	Yoke Plate 45 °	1	Galvanized Steel
INS	S24080186VV6S087	50k	50k Suspension with 17" CR & 8" CR	4	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

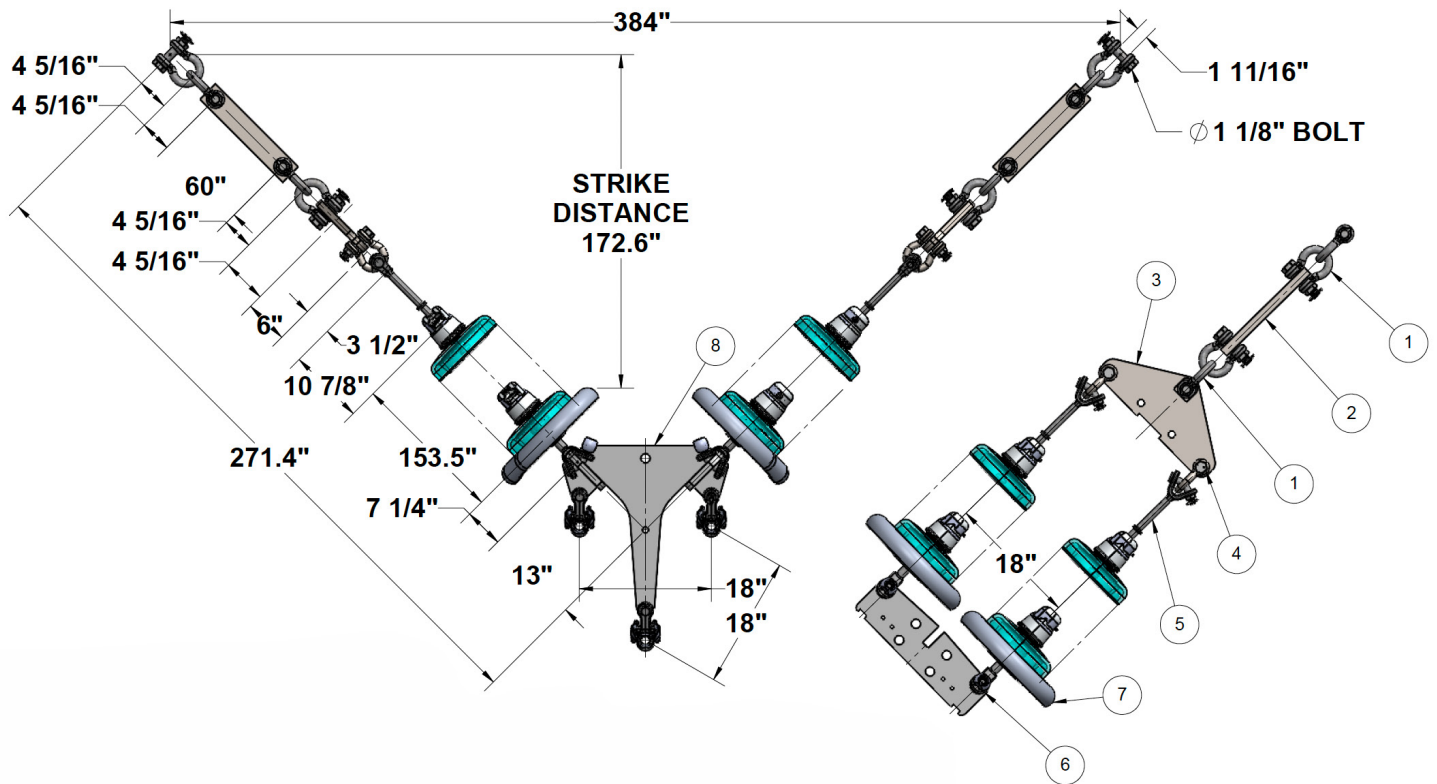
Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



TRIPLE CONDUCTOR V-STRING DOUBLE STRING ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



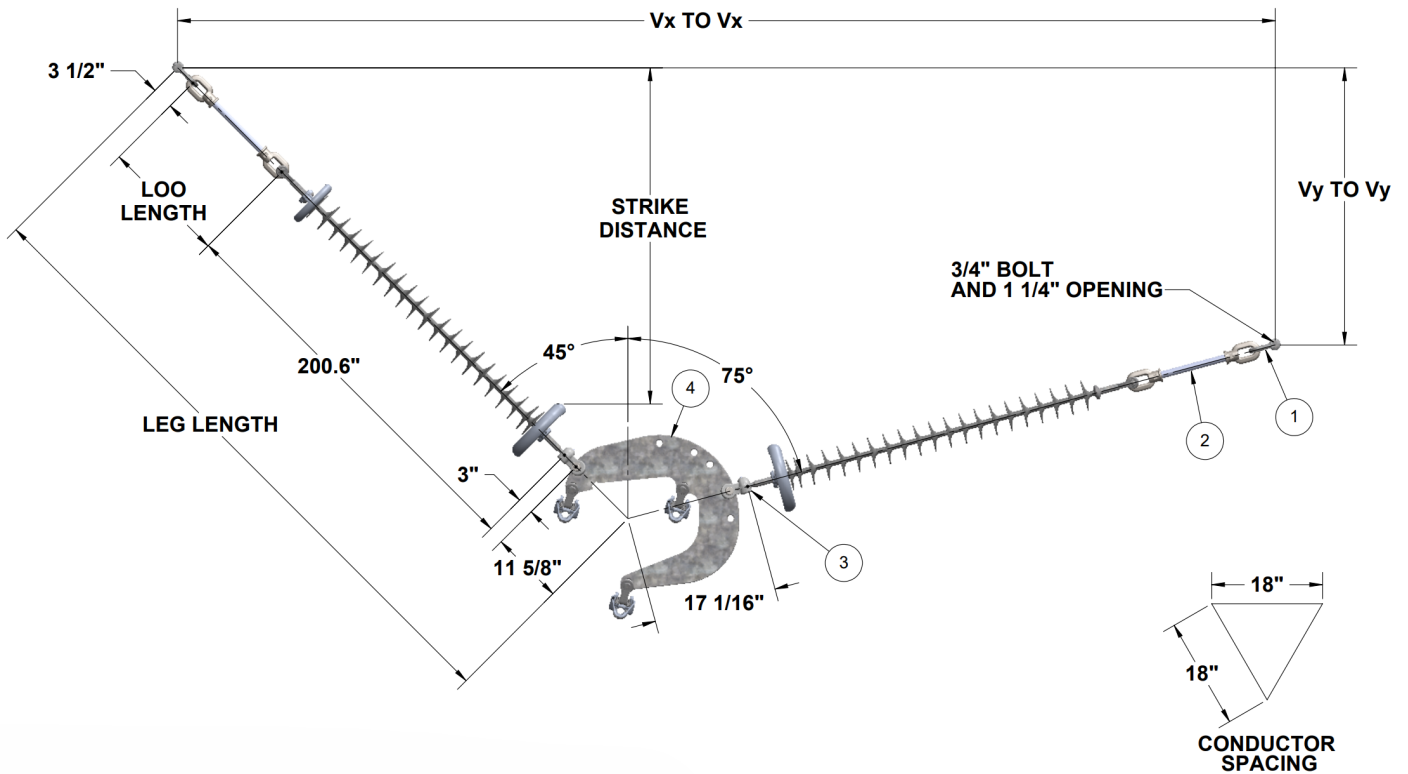
Connection Hardware Catalog#: **X3VS4SB50C3-4560**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	8	Galvanized Forged Steel
2	EL100090960	100k	Steel Strap	2	Galvanized Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	2	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	4	Galvanized Forged Steel
6	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	4	Galvanized Ductile Iron
7	CR24 / 32-17	-	17" Corona Ring	4	Aluminum Alloy
8	Y3DV100S1845	100k	Yoke Plate 45 ° 3 Conductor	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	100	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately





Connection Hardware Catalog#: **Contact MPS**

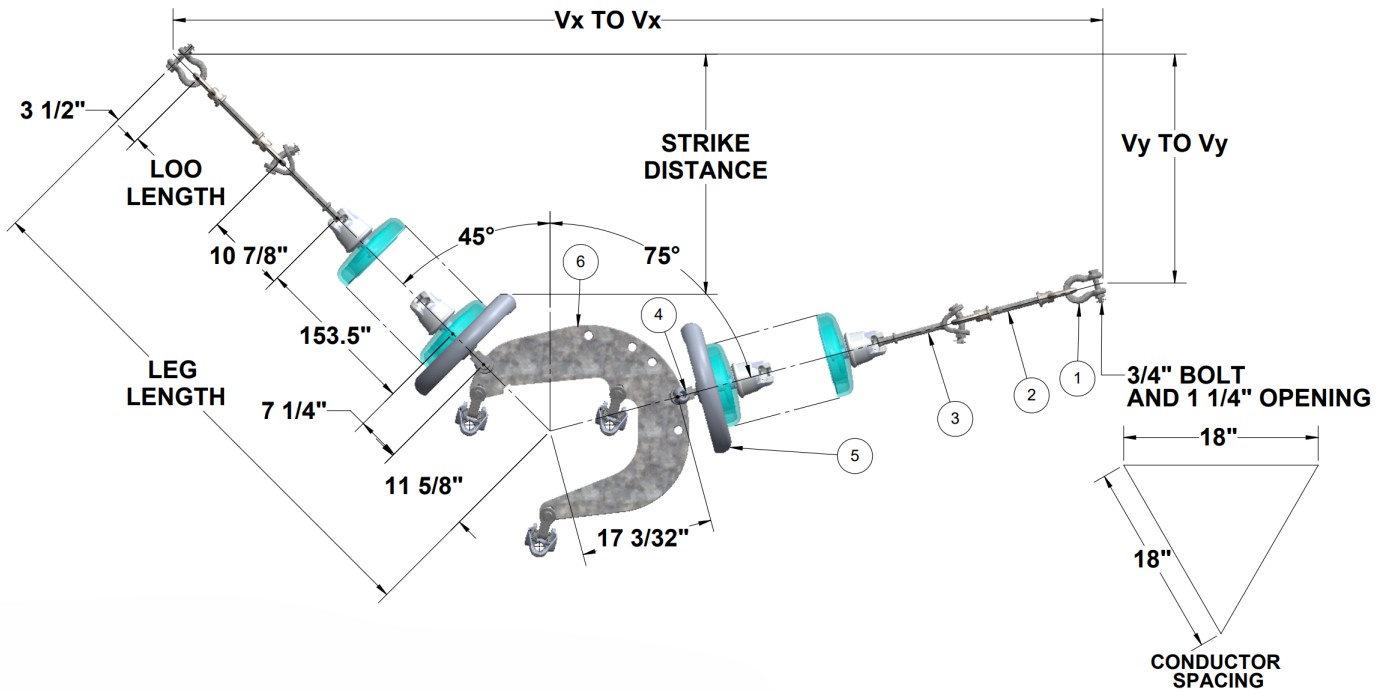
ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-L	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
4	Y3RV050S187545	50k	Crescent Yoke [75 ° / 45 °]	1	Galvanized Steel
INS	S24080186VV6S087	50k	50k Suspension with 17" CR & 8" CR	2	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- For additional application notes, see page TCA2

TRIPLE CONDUCTOR ANGLE V-STRING ASSEMBLY EHV [345kV - 500kV]

50k
Ceramic Insulator



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	50k	Anchor Shackle	2	Galvanized Forged Steel
2	LOO-50-L	50k	Oval Eye / Oval Eye Hot Link	2	Galvanized Forged Steel
3	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
4	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	2	Galvanized Ductile Iron
5	CR24 / 32-17	-	17" Corona Ring	2	Aluminum Alloy
6	Y3RV050S187545	50k	Crescent Yoke [75 ° / 45 °]	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

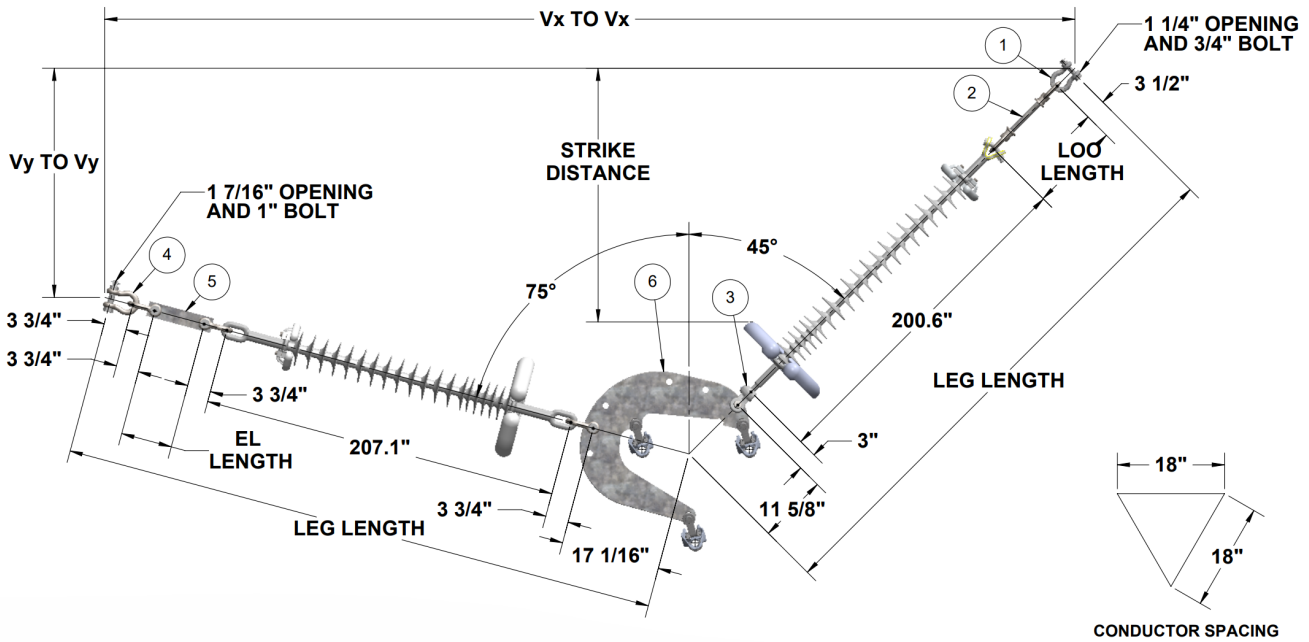
Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR ANGLE V-STRING ASSEMBLY EHV [345kV - 500kV]

50k / 80k
Polymer Insulator



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-66-BC	60k	Anchor Shackle	1	Galvanized Forged Steel
2	LOO-50-L	50k	Oval Eye / Oval Eye Hot Link	1	Galvanized Forged Steel
3	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	1	Galvanized Ductile Iron
4	ASH-78-BC	80k	Anchor Shackle	4	Galvanized Forged Steel
5	EL8088-L	80k	Steel Strap	1	Galvanized Steel
6	Y3RV080S187545	80k	Crescent Yoke [75 ° / 45 °]	1	Galvanized Steel
INS 1	S24080186VV6S087	50k	50k Suspension with 17" CR & 8" CR	1	Polymer Insulator
INS 2	S49090186VV6S087	80k	80k Suspension with 17" CR & 8" CR	1	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

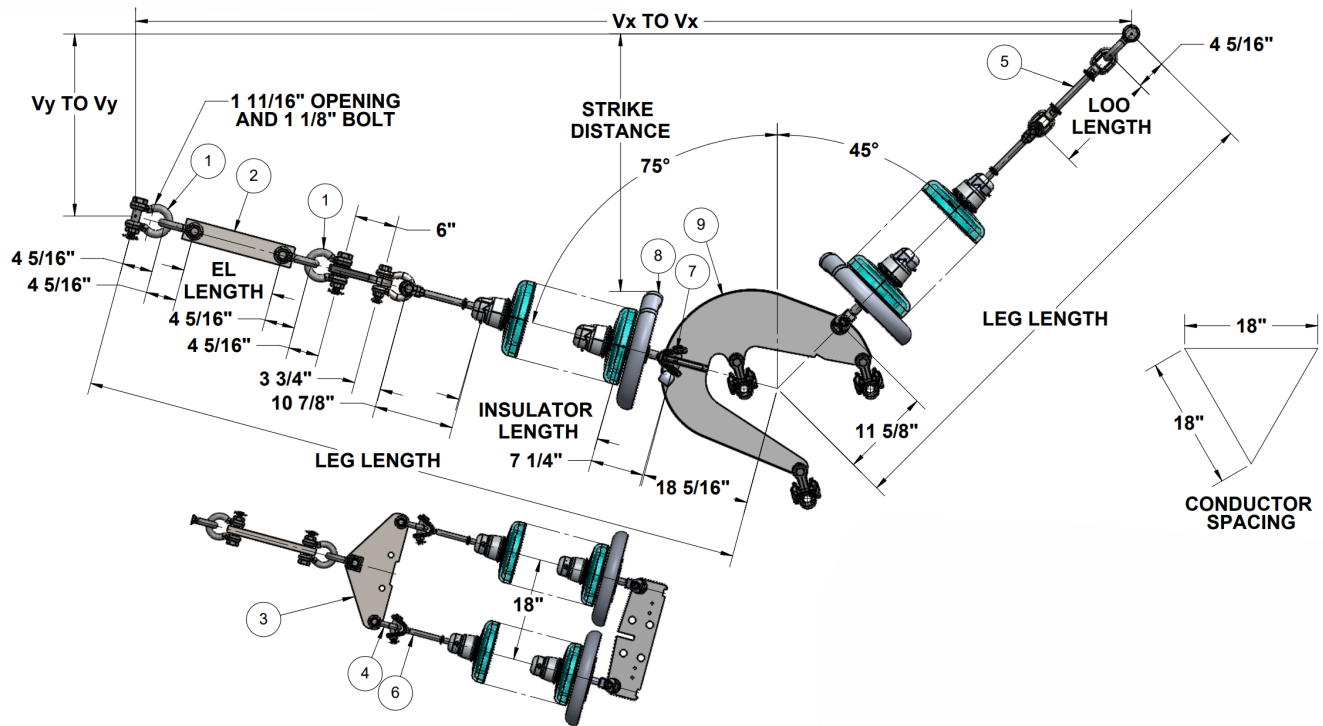
Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- LOO length will need to be stated upon order
- "L" stands for length (between 14" - 144")
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR ANGLE V-STRING DOUBLE / SINGLE 50k ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	5	Galvanized Forged Steel
2	EL1000909-L	100k	Steel Strap	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-78-BC	80k	Anchor Shackle	2	Galvanized Forged Steel
5	LOO-50-L	50k	Oval Eye / Oval Eye	1	Galvanized Forged Steel
6	YCBHL-78	50k	Y-Clevis Ball Hot Line	3	Galvanized Forged Steel
7	SYCRL-87-S	50k	90" Socket Y-Clevis	3	Galvanized Ductile Iron
8	CR24 / 32-17	-	17" Corona Ring	3	Aluminum Alloy
9	Y3RB100S187545	100k	Crescent Yoke	1	Galvanized Steel
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

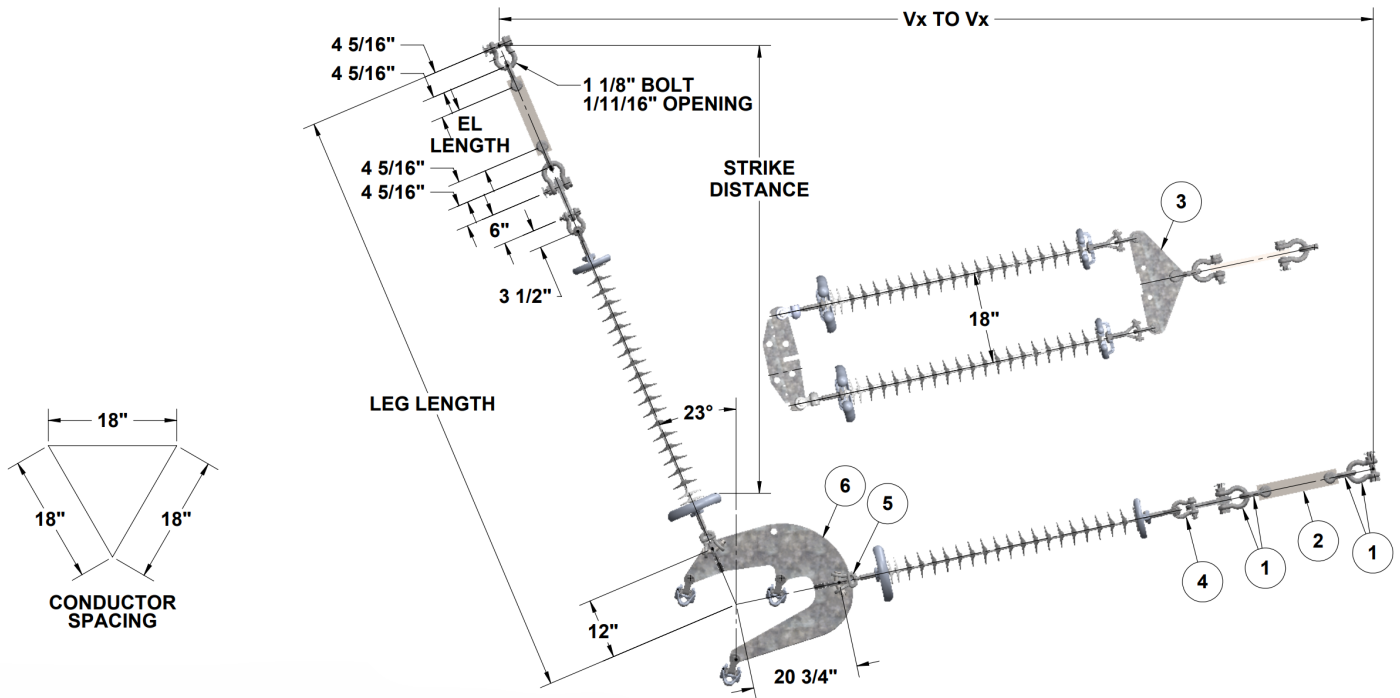
Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- For additional application notes, see page TCA2
- "L" stands for length (between 14" - 144")
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR ANGLE V-STRING DOUBLE 50K ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	8	Galvanized Forged Steel
2	EL-100-0909-L	100k	Steel Strap	2	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	2	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	4	Galvanized Ductile Iron
6	Y3RD100S187823	100k	Crescent [78°/23°] Double Bundle	1	Galvanized Steel
INS	S24080186VV6S087	50k	50k Suspension With 17" CR & 8" CR	4	Polymer Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

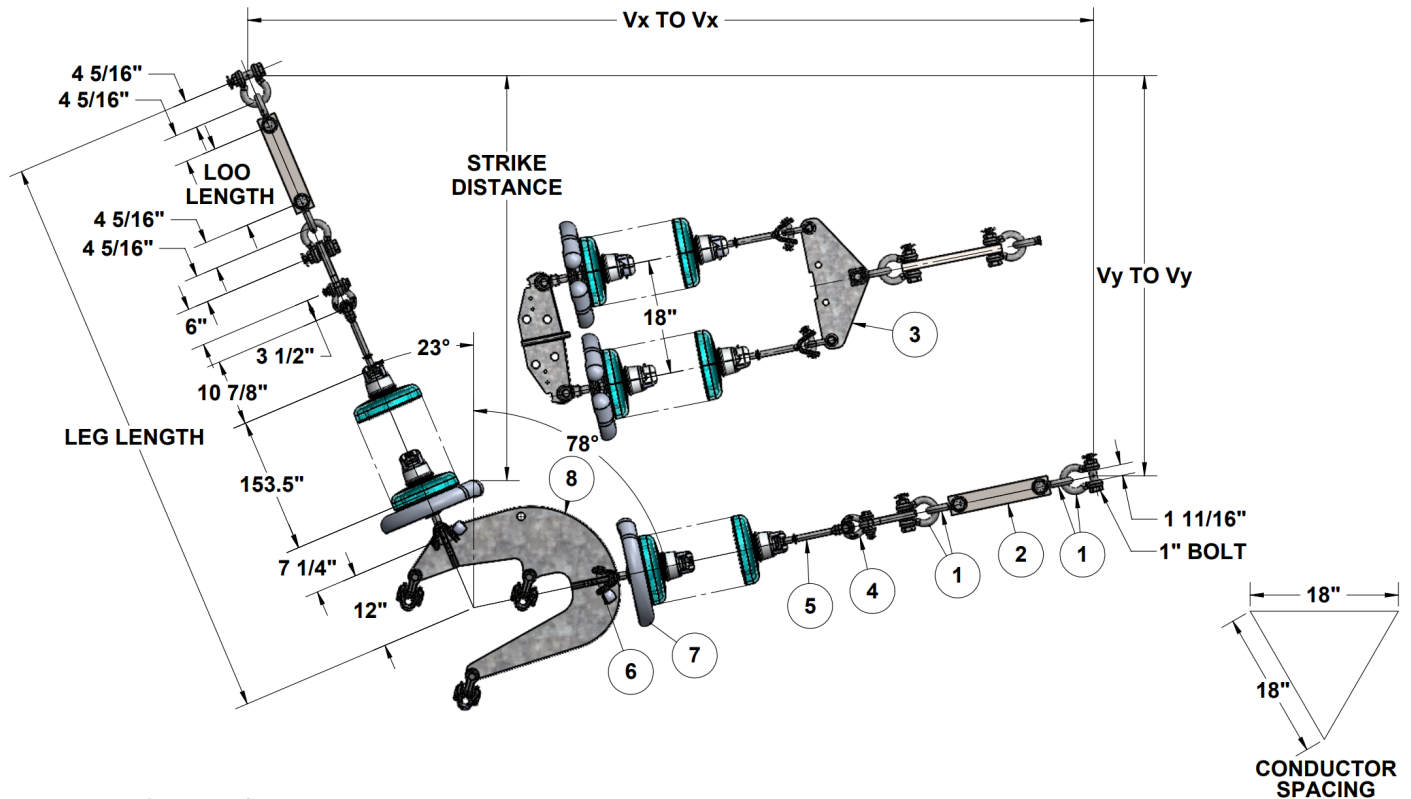
Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- LOO length will need to be stated upon order
- "L" stands for length (between 14" - 144")
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR ANGLE V-STRING DOUBLE 50K ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **Contact MPS**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	ASH-89-BC	100k	Anchor Shackle	8	Galvanized Forged Steel
2	EL-100-0909-L	100k	Steel Strap	2	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	2	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	4	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	4	Galvanized Forged Steel
6	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	4	Galvanized Ductile Iron
7	CR24 / 32-17	-	17" Corona Ring	4	Aluminum Alloy
8	Y3RD100S187823	100k	Crescent [78°/23°] Double Bundle	1	Galvanized Ductile Iron
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	CF-RYCI Series	-	EHV Suspension Clamp	3	Aluminum Alloy

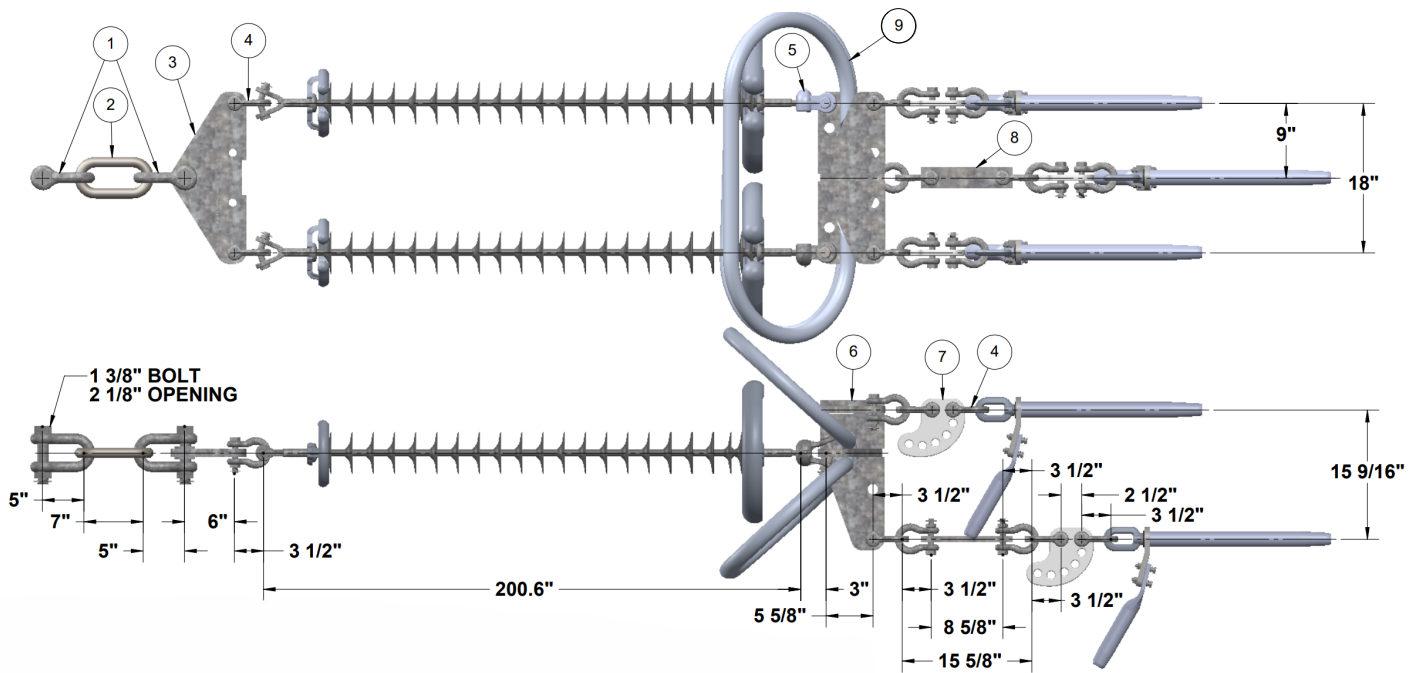
Application Notes:

- This running angle v-string assembly is for reference only, additional inputs required
- Insulator and clamp are not included in assembly and must be ordered separately
- Mark up this assembly image with the structure dimension Vx-Vx & Vy-Vy and contact transmission@macleanpower.com
- For additional application notes, see page TCA2
- "L" stands for length (between 14" - 144")
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **X3DE2YB50A3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1011-BC	150k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC-S	60k	Anchor Shackle	13	Galvanized Forged Steel
5	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	2	Galvanized Ductile Iron
6	Y3DE100S1800	100k	Deadend Yoke Plate (2xIns 3xCond)	1	Galvanized Steel
7	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
8	ASM-343-992	50k	Extension Plate	1	Galvanized Steel
9	C-7702-2	-	Corona Shield for 500kV	2	Aluminum Alloy
INS	S24080...VV	50k	50k Suspension With 17" CR & 8" CR	2	Polymer Insulator
CLAMP	SDS-EHV Series	-	Compression Deadend	3	-

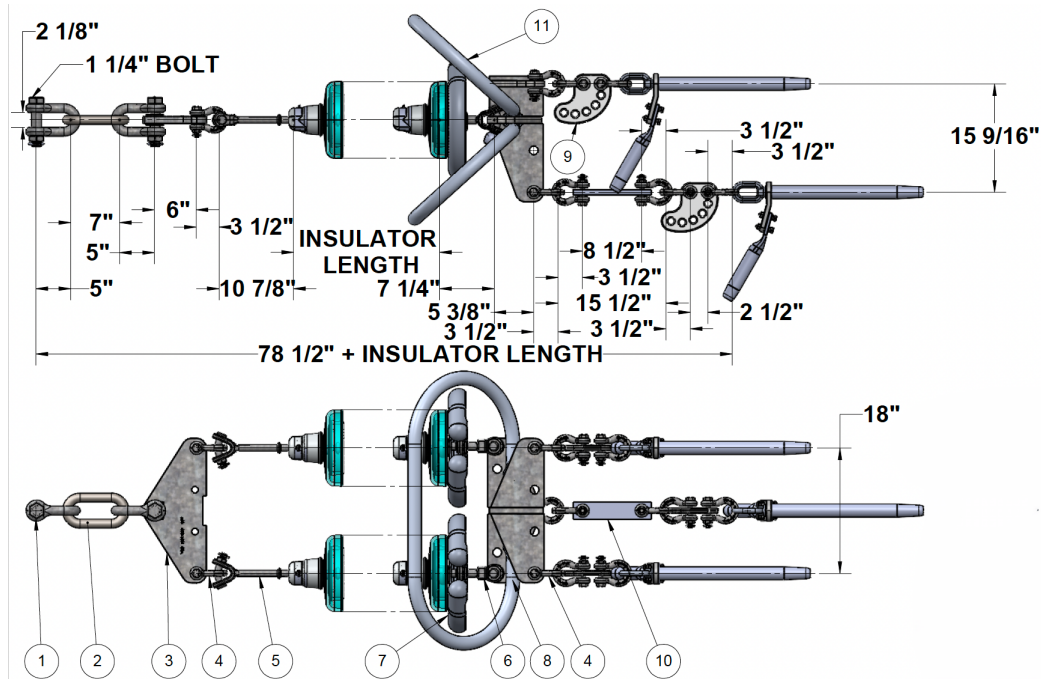
Application Notes:

- Corona shield included in BOM and connection hardware catalog number
- Insulator and clamp are not included in assembly and must be ordered separately
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



Connection Hardware Catalog#: **X3DE2SB50C3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1010-BC	100k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	Y2DT100S1800	100k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-66-BC-S	60k	Anchor Shackle	13	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	2	Galvanized Forged Steel
6	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	2	Galvanized Ductile Iron
7	CR24 / 32-17	-	17" Corona Ring	2	Aluminum Alloy
8	Y3DE100S1800	100k	Deadend Yoke Plate (2xIns 3xCond)	1	Galvanized Steel
9	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
10	EL4066-8.5	40k	Extension Strap	1	Galvanized Steel
11	C-7702-2	-	Corona Shield for 500kV	2	Aluminum Alloy
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	3	-

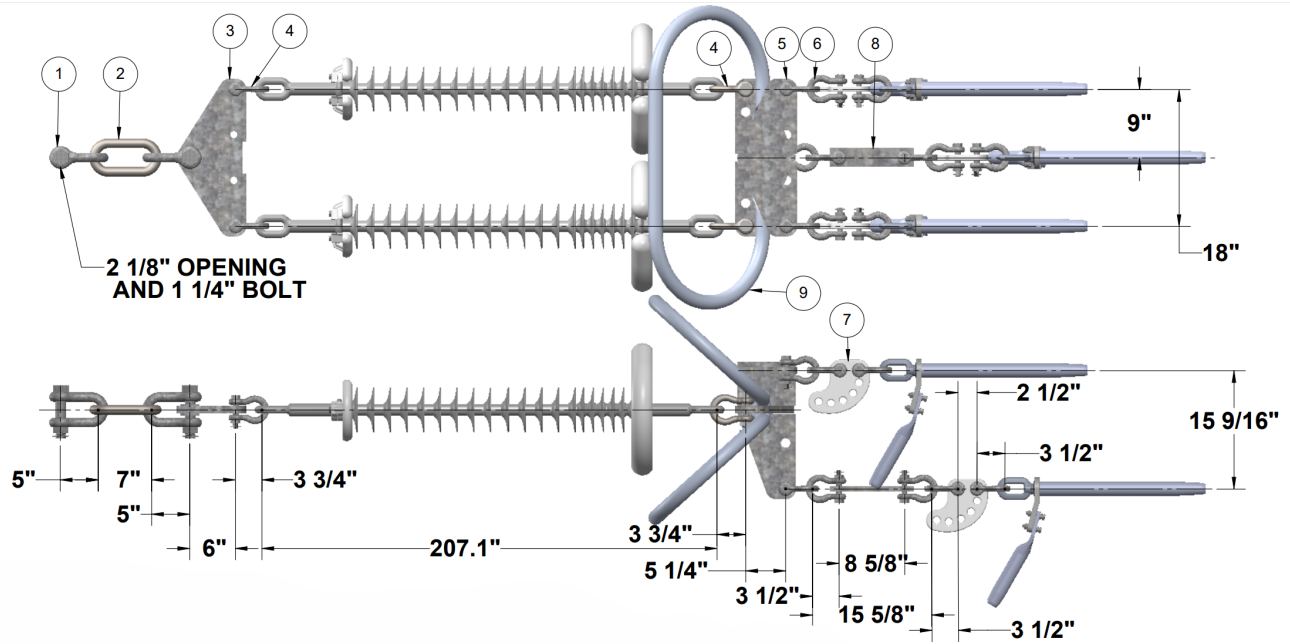
Application Notes:

- Corona shield included in BOM and connection hardware catalog number
- Insulator and clamp are not included in assembly and must be ordered separately
- See page TCA2 for application notes



TRIPLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**80k
Polymer Insulator**



Connection Hardware Catalog#: **X3DE2EE80A3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1011-BC	150k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	Y2DT150S1800	150k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-78-BC	80k	Anchor Shackle	4	Galvanized Forged Steel
5	Y3DE100S1800	100k	Deadend Yoke Plate (2xIns 3xCond)	1	Galvanized Steel
6	ASH-66-BC-S	60k	Anchor Shackle	11	Galvanized Forged Steel
7	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
8	ASM-343-992	50k	Extension Plate	1	Galvanized Steel
9	C-7702-2	-	Corona Shield for 500kV	2	Aluminum Alloy
INS	S49090...V	80k	80k Eye/Eye Suspension With 17" CR & 8" CR	2	Polymer Insulator
CLAMP	SDS-EHV Series	-	Compression Deadend	3	-

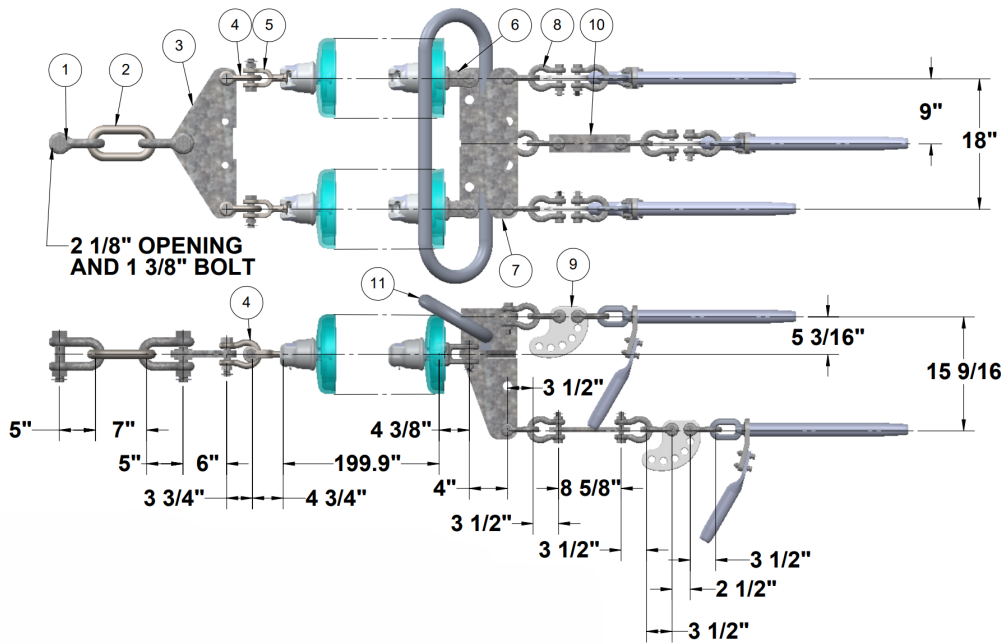
Application Notes:

- Corona shield included in BOM and connection hardware catalog number
- Insulator and clamp are not included in assembly and must be ordered separately
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR DOUBLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

66k
Ceramic Insulator



Connection Hardware Catalog#: **X3DE2SB66C3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1011-BC	150k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	ASM-6433-4	120k	Triangular Yoke Plate	1	Galvanized Steel
4	ASH-78-BC	80k	Anchor Shackle	2	Galvanized Forged Steel
5	CB-824-BC	66k	Clevis IEC-24 Ball	2	Galvanized Forged Steel
6	SCR-824-BC	66k	IEC-24 Socket Ball	2	Galvanized Forged Steel
7	Y3DE160S1800	150k	Deadend Yoke Plate (2xIns 3xCond)	1	Galvanized Steel
8	ASH-66-BC-S	60k	Anchor Shackle	11	Galvanized Forged Steel
9	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
10	ASM-343-992	50k	Extension Strap	1	Galvanized Steel
11	C-7702-2	-	Corona Shield for 500kV	1	Aluminum Alloy
INS	MG300Z	67.4k	IEC-24 (300kN)	-	Ceramic Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	3	-

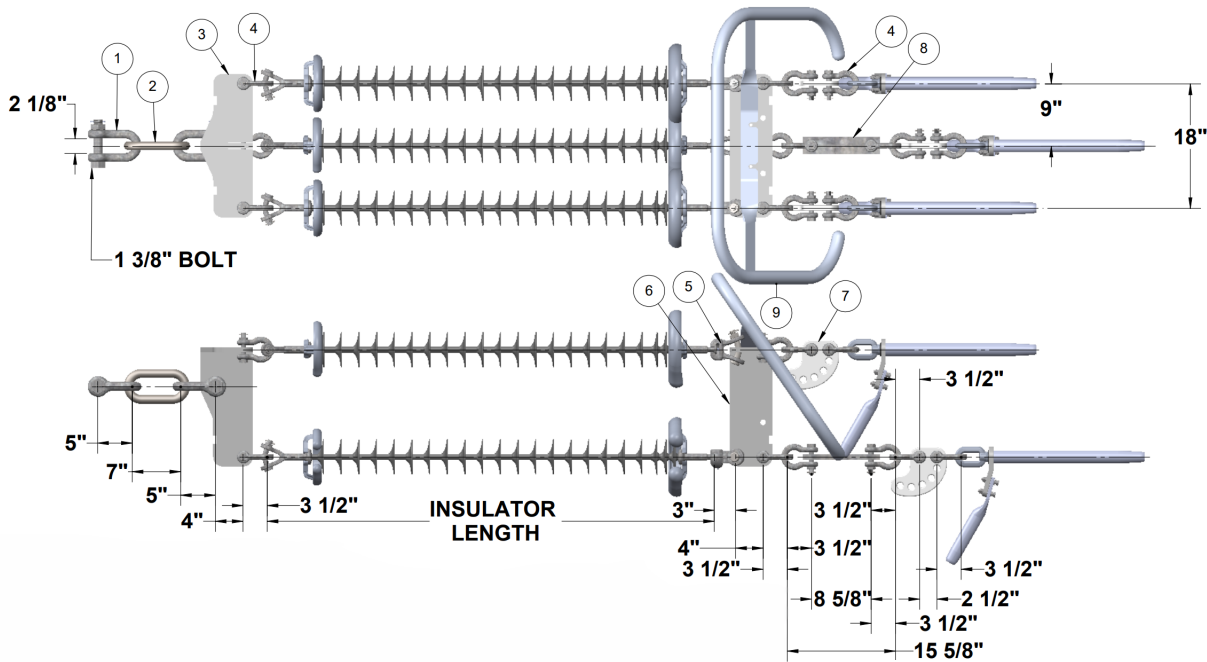
Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



TRIPLE CONDUCTOR TRIPLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Polymer Insulator**



Connection Hardware Catalog#: **X3DE3YB50A3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1011-BC	150k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	Y3DT150S1800	150k	Triangular Yoke Plate (3xIns 3xCond)	1	Galvanized Steel
4	ASH-66-BC-S	60k	Anchor Shackle	14	Galvanized Forged Steel
5	SYCR-87-S	50k	52-8/11 Socket Y-Clevis Rotated	3	Galvanized Ductile Iron
6	Y3DL150S1800	150k	Rectangular Yoke Plate (3xIns 3xCond)	1	Galvanized Steel
7	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
8	ASM-343-992	50k	Extension Plate	1	Galvanized Steel
9	C-0172-DS-S	-	Corona Shield for 500kV	1	Aluminum Alloy
INS	S24080...VV	50k	50k Suspension With 17" CR & 8" CR	3	Polymer Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	3	-

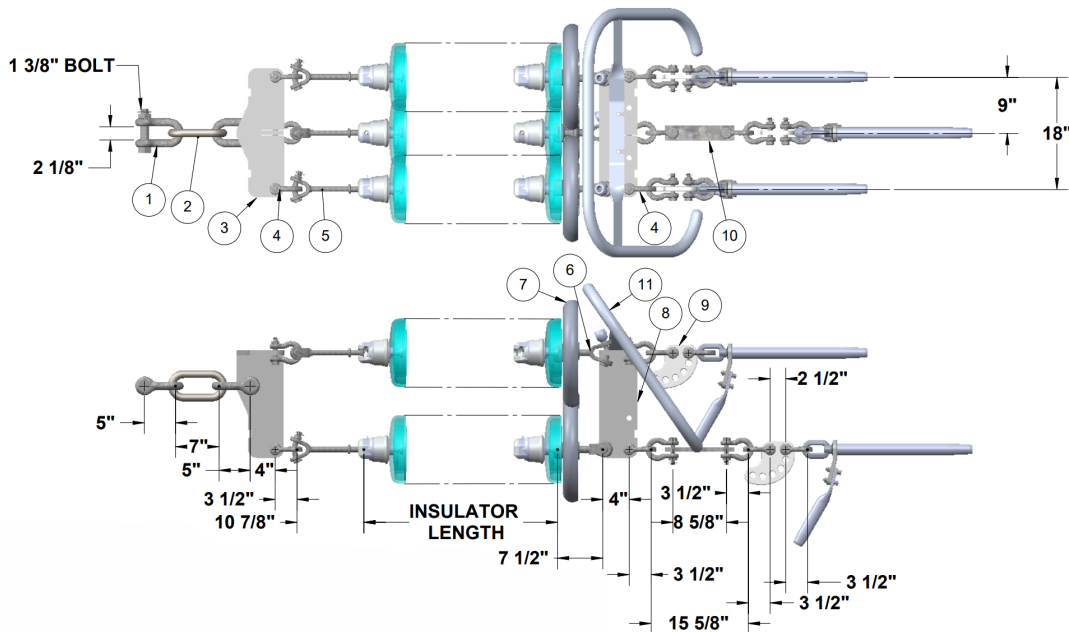
Application Notes:

- Corona shield included in BOM and connection hardware catalog number
- Insulator and clamp are not included in assembly and must be ordered separately
- For additional application notes, see page TCA2



TRIPLE CONDUCTOR TRIPLE STRING DEADEND ASSEMBLY EHV [345kV - 500kV]

**50k
Ceramic Insulator**



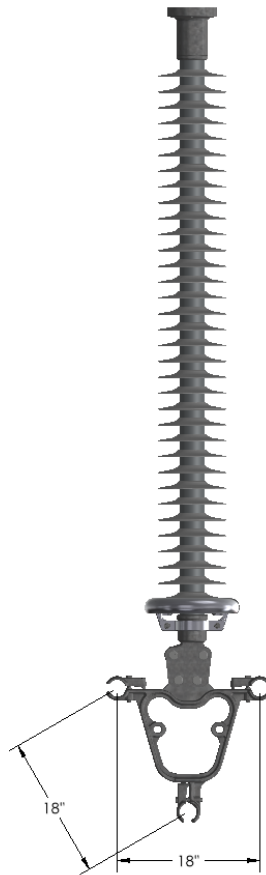
Connection Hardware Catalog#: **X3DE3SB50C3**

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
1	CSH-1011-BC	150k	Chain Shackle	2	Galvanized Forged Steel
2	CL-10	150k	Chain Link	1	Galvanized Forged Steel
3	Y3DT150S1800	150k	Triangular Yoke Plate (3xIns 3xCond)	1	Galvanized Steel
4	ASH-66-BC	60k	Anchor Shackle	14	Galvanized Forged Steel
5	YCBHL-78	50k	Y-Clevis Ball Hot Line 52-8/11	3	Galvanized Forged Steel
6	SYCRL-87-S	50k	52-8/11 Socket Y-Clevis Rotated CR	3	Galvanized Ductile Iron
7	CR24/32-17	-	17" Corona Ring	3	Aluminum Alloy
8	Y3DL150S1800	150k	Rectangular Yoke Plate (3xIns 3xCond)	1	Galvanized Steel
9	ASM-6212-2	50k	Adjustment Plate	3	Galvanized Steel
10	ASM-343-992	50k	Extension Strap	1	Galvanized Steel
11	C-0172-DS-S	-	Corona Shield	1	Aluminum Alloy
INS	MG528Z / MG5211Z	40k / 50k	ANSI 52-8 / 52-11 (K Type)	-	Ceramic Insulator
CLAMP	SDES-EHV Series	-	Compression Deadend	3	-

Application Notes:

- Corona shield included in BOM and connection hardware catalog number
- Insulator and clamp are not included in assembly and must be ordered separately
- See page TCA2 for application notes



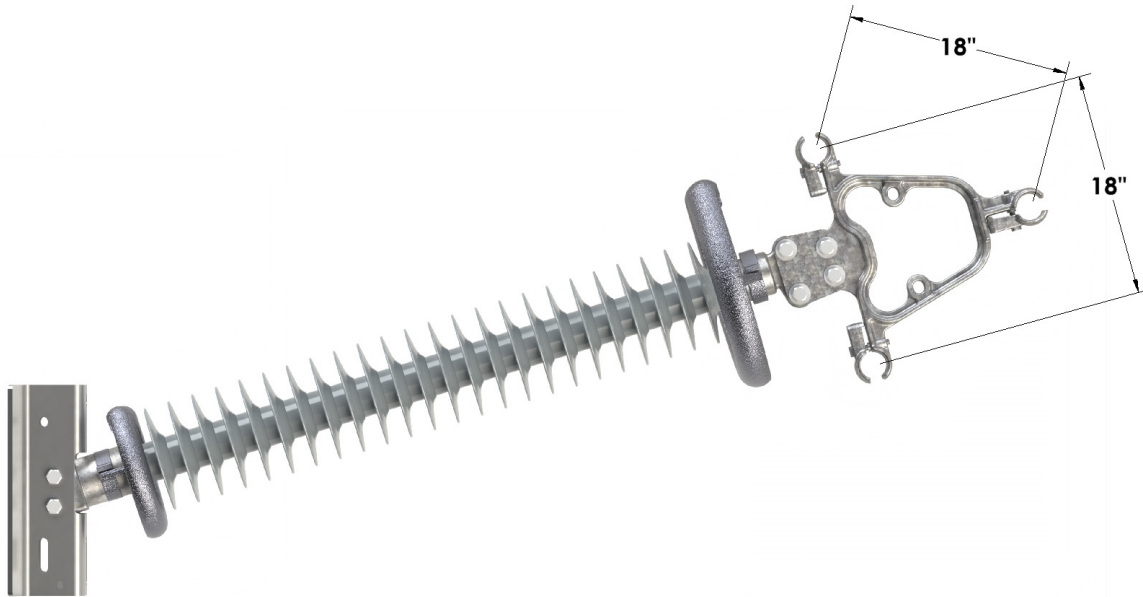


Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H35010...RS	-	3.0" Reverse Shed Line Post	1	Polymer Insulator
CLAMP	JY3 Series	-	EHV 3-Conductor Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately



Assembly shown for reference

ITEM NUMBER	CATALOG NUMBER	RATING (LBS)	DESCRIPTION	QTY	MATERIAL
INS	H31010...	-	3.0" Flat Base Line Post	1	Polymer Insulator
CLAMP	JY3 Series	-	EHV 3-Conductor Jumper Clamp	1	Aluminum Alloy

Application Notes:

- See page TCA2 for application notes
- Insulator and clamp are not included in assembly and must be ordered separately

MP



TRANSMISSION ASSEMBLY INSULATORS



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TRANSMISSION ASSEMBLY INSULATORS

APPLICATION NOTES

Application Notes:

- Typical HV designs for use in transmission assemblies 69kV to 230kV
- Typical EHV designs for use in transmission assemblies 345kV to 500kV
- Assembly insulators are designed to match the dry arc distance of equivalent ceramic string insulators by voltage class
- Corona rings are required at 230kV and above, but may be added to any voltage application as required
- Corona rings are required at 345kV and 500kV
- For insulators that include corona rings, the published electrical values also include the corona ring



V-STRING INSULATORS - LONGER LENGTH DESIGNS

DESIGN CHARACTERISTICS								FLASHOVER VALUES (kV)				
SML	VOLTAGE	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT
30k	230kV	Heavy ≥ 240	S54080112VASS034	123.6"	112"	242.7"	1.6	1054	921	1759	1825	19.5 Lbs.
30k	345kV	Heavy ≥ 360	S54080148VBSS056	159.6"	148"	364"	1.3	1318	1158	2276	2346	28.8 Lbs.
30k	500kV	Heavy ≥ 520	S54080186VB6S087	197.6"	183.8"	521"	1.0	1580	1385	2780	2851	45.7 Lbs.
50k	230kV	Heavy ≥ 360	S24080112VASS034	126.6"	112.1"	242.7"	1.6	1055	922	1761	1827	27.4 Lbs.
50k	345kV	Heavy ≥ 360	S24080148VBSS056	162.6"	148.1"	364"	1.3	1319	1159	2277	2347	38.9 Lbs.
50k	500kV	Heavy ≥ 360	S24080186VB6S087	200.6"	182.3"	521"	1.0	1569	1379	2759	2830	57.9 Lbs.
50k	765kV	Heavy	S24080220VH5L093	234.6"	216.5"	631.7"	1.8	1819	1573	3222	3288	71.8 Lbs.
80k	765kV	Heavy	S49090220VH5L093	241.1"	216.5"	611.7"	1.8	1819	1573	3222	3288	98.2 Lbs.

Design Notes:

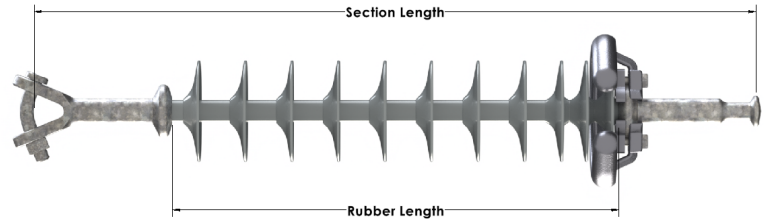
- Published electrical values include the corona ring
- For additional application notes, see page TAI2

TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

30k SML
HV Polymer Suspension

INSULATOR STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



DESIGN CHARACTERISTICS

FLASHOVER VALUES (kV)

VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	FLASHOVER VALUES (kV)				WEIGHT
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	
69kV	6 Disc	36.5"	Medium \geq 55	S54080034MXSS017	45.9"	36.7"	106.5"	0.9	364	328	629	670	7.9 Lbs.
69kV	6 Disc	36.5"	Heavy \geq 70	S54080034MXSS017	45.9"	36.7"	106.5"	0.9	364	328	629	670	7.9 Lbs.
115kV	8 Disc	48"	Medium \geq 95	S54080046MXSS023	57.9"	48.7"	143.9"	0.9	478	427	818	866	9.4 Lbs.
115kV	8 Disc	48"	Heavy \geq 120	S54080046MXSS023	57.9"	48.7"	143.9"	0.9	478	427	818	866	9.4 Lbs.
115kV	8 Disc w/CR	48"	Medium \geq 95	S54080048MASS024	59.9"	48.1"	150.2"	0.9	497	443	849	899	9.8 Lbs.
115kV	8 Disc w/CR	48"	Heavy \geq 120	S54080048MASS024	59.9"	48.1"	150.2"	0.9	497	443	849	899	9.8 Lbs.
138kV	9 Disc	53.7"	Medium \geq 115	S54080052MXSS026	63.9"	54.7"	162.7"	0.9	535	475	911	962	10.2 Lbs.
138kV	9 Disc	53.7"	Heavy \geq 140	S54080052MXSS026	63.9"	54.7"	162.7"	0.9	535	475	911	962	10.2 Lbs.
138kV	9 Disc w/CR	53.7"	Medium \geq 115	S54080054VASS017	65.6"	54"	118.7"	1.7	529	469	900	951	12.8 Lbs.
138kV	9 Disc w/CR	53.7"	Heavy \geq 140	S54080054VASS023	65.6"	54"	142.0"	1.2	529	469	900	951	14.4 Lbs.
161kV	10 Disc	59.5"	Medium \geq 130	S54080056VXSS020	67.6"	59.4"	132.3"	1.4	580	512	983	1036	11.5 Lbs.
161kV	10 Disc	59.5"	Heavy \geq 165	S54080056VXSS029	67.6"	59.4"	167.3"	0.9	580	512	983	1036	13.8 Lbs.
161kV	10 Disc w/CR	59.5"	Medium \geq 130	S54080060VASS019	71.6"	60"	132.5"	1.7	586	516	992	1045	13.6 Lbs.
161kV	10 Disc w/CR	59.5"	Heavy \geq 165	S54080060VASS028	71.6"	60"	167.4"	1.0	586	516	992	1045	15.9 Lbs.
230kV	12 Disc w/CR	71"	Medium \geq 190	S54080071VASS031	82.6"	71"	190"	1.1	690	600	1158	1215	17.1 Lbs.
230kV	12 Disc w/CR	71"	Heavy \geq 240	S54080071VASS045	82.6"	71"	244.3"	1.3	697	605	1169	1226	22.1 Lbs.
230kV	14 Disc w/CR	82.5"	Medium \geq 190	S54080083VASS028	94.6"	83"	190.4"	1.5	805	686	1336	1397	16.8 Lbs.
230kV	14 Disc w/CR	82.5"	Heavy \geq 240	S54080083VASS041	94.6"	83"	240.8"	1.0	805	686	1336	1397	20.2 Lbs.

Application Notes:

- Published electrical values include the corona ring
- For additional application notes, see page TAI2

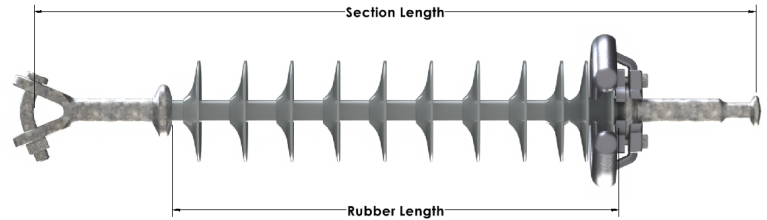


TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

**50k SML
HV Polymer Suspension**

INSULATOR STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	222 kN	111 kN



DESIGN CHARACTERISTICS

FLASHOVER VALUES (kV)

VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	FLASHOVER VALUES (kV)				WEIGHT
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	
69kV	6 Disc	38.8"	Medium \geq 55	S24080035VXSS010	49.6"	38.4"	72.5"	2.2	380	342	656	699	12.4 Lbs.
69kV	6 Disc	38.8"	Heavy \geq 70	S24080035VXSS010	49.6"	38.4"	72.5"	2.2	380	342	656	699	12.4 Lbs.
115kV	8 Disc	51.1"	Medium \geq 95	S24080048VXSS013	62.6"	51.4"	97.2"	2.1	504	449	860	910	14.3 Lbs.
115kV	8 Disc	51.1"	Heavy \geq 120	S24080048VXSS020	62.6"	51.4"	124.3"	1.2	504	449	860	910	16.4 Lbs.
115kV	8 Disc w/CR	51.1"	Medium \geq 95	S24080051VASS012	65.6"	51.1"	96.3"	2.6	501	446	855	905	16.4 Lbs.
115kV	8 Disc w/CR	51.1"	Heavy \geq 120	S24080051VASS019	65.6"	51.1"	123.5"	1.4	501	446	855	905	18.5 Lbs.
138kV	9 Disc	57.3"	Medium \geq 115	S24080054VXSS017	68.6"	57.4"	118.7"	1.7	561	496	952	1005	15.9 Lbs.
138kV	9 Disc	57.3"	Heavy \geq 140	S24080054VXSS023	68.6"	57.4"	142.0"	1.2	561	496	952	1005	17.7 Lbs.
138kV	9 Disc w/CR	57.3"	Medium \geq 115	S24080057VASS016	71.6"	57.1"	117.8"	2.0	558	494	948	1000	18 Lbs.
138kV	9 Disc w/CR	57.3"	Heavy \geq 140	S24080057VASS022	71.6"	57.1"	141.1"	1.3	558	494	948	1000	19.8 Lbs.
161kV	10 Disc	63.3"	Medium \geq 130	S24080060VXSS019	74.6"	63.4"	132.5"	1.7	618	542	1044	1098	17 Lbs.
161kV	10 Disc	63.3"	Heavy \geq 165	S24080060VXSS028	74.6"	63.4"	167.4"	1.0	618	542	1044	1098	19.7 Lbs.
161kV	10 Disc w/CR	63.3"	Medium \geq 130	S24080063VASS018	77.6"	63.1"	131.6"	1.9	615	540	1039	1094	19 Lbs.
161kV	10 Disc w/CR	63.3"	Heavy \geq 165	S24080063VASS027	77.6"	63.1"	166.5"	1.1	615	540	1039	1094	21.7 Lbs.
230kV	12 Disc w/CR	75.7"	Medium \geq 190	S24080076VASS030	90.6"	76.1"	191.1"	1.3	739	637	1234	1293	23.6 Lbs.
230kV	12 Disc w/CR	75.7"	Heavy \geq 240	S24080076VAAL037	90.6"	76.7"	241.1"	1.5	745	641	1243	1302	28.4 Lbs.
230kV	14 Disc w/CR	88"	Medium \geq 190	S24080088VASS027	102.6"	88.1"	191.1"	1.7	853	722	1411	1473	23.6 Lbs.
230kV	14 Disc w/CR	88"	Heavy \geq 240	S24080088VASS040	102.6"	88.1"	241.9"	1.1	853	722	1411	1473	27.5 Lbs.

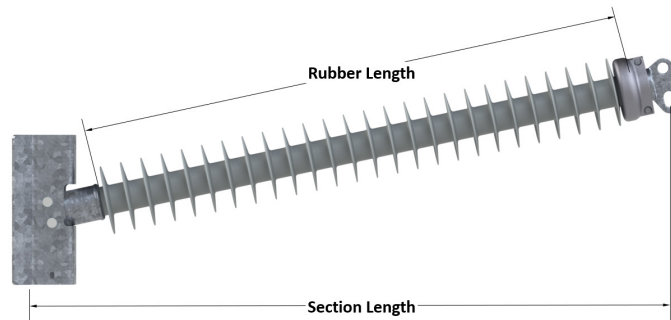
Application Notes:

- Published electrical values include the corona ring
- For additional application notes, see page TAI2



TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

HV Polymer 2.5" Horizontal Line Post



DESIGN CHARACTERISTICS									FLASHOVER VALUES (kV)						
VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT	MDCL	SCL
69kV	6 Disc	38.8"	Medium \geq 55	H29010037MXSS019	47.4"	39.3"	100.9"	1.1	378	350	651	733	54.5 Lbs.	1995	3990
69kV	6 Disc	38.8"	Heavy \geq 70	H29010037MXSS019	47.4"	39.3"	100.9"	1.1	378	350	651	733	54.5 Lbs.	1995	3990
115kV	8 Disc	51.1"	Medium \geq 95	H29010049MXSS025	59.1"	51"	132.6"	1.1	482	446	836	884	61.2 Lbs.	1546	3092
115kV	8 Disc	51.1"	Heavy \geq 120	H29010049MXSS025	59.1"	51"	132.6"	1.1	482	446	836	884	61.2 Lbs.	1546	3092
115kV	8 Disc w/ CR	51.1"	Medium \geq 95	H29010050MASS026	60.1"	51.7"	137.9"	1.1	487	451	846	894	66.9 Lbs.	1518	3036
115kV	8 Disc w/ CR	51.1"	Heavy \geq 120	H29010050MASS026	60.1"	51.7"	137.9"	1.1	487	451	846	894	66.9 Lbs.	1518	3036
138kV	9 Disc	57.3"	Medium \geq 115	H29010056BXSS014	66"	58.9"	119.0"	1.7	551	508	960	1003	72.6 Lbs.	1417	2934
138kV	9 Disc	57.3"	Heavy \geq 140	H29010056AXSS021	66"	58.9"	150.5"	1.0	551	508	960	1003	77.1 Lbs.	1417	2934
138kV	9 Disc w/ CR	57.3"	Medium \geq 115	H29010058BASS014	68"	58.8"	121.0"	1.7	550	507	959	1001	75.4 Lbs.	1313	2626
138kV	9 Disc w/ CR	57.3"	Heavy \geq 140	H29010058AASS022	68"	58.8"	157.0"	1.0	550	507	959	1001	80.5 Lbs.	1313	2626
161kV	10 Disc	63.3"	Medium \geq 130	H29010062CXSS019	71.9"	64.9"	147.5"	1.3	603	554	1054	1092	78.6 Lbs.	1238	2476
161kV	10 Disc	63.3"	Heavy \geq 165	H29010062AXSS024	71.9"	64.9"	170.0"	1.0	603	554	1054	1092	81.8 Lbs.	1238	2476
161kV	10 Disc w/ CR	63.3"	Medium \geq 130	H29010064CASS019	73.8"	64.8"	149.5"	1.3	602	553	1053	1090	81.4 Lbs.	1206	2412
161kV	10 Disc w/ CR	63.3"	Heavy \geq 165	H29010064AASS025	73.8"	64.8"	176.5"	1.0	602	553	1053	1090	85.2 Lbs.	1206	2412
230kV	12 Disc w/ CR	75.7"	Medium \geq 190	H29010076AASS029	85.6"	76.8"	206.5"	1.0	705	642	1237	1266	93.3 Lbs.	1018	2036
230kV	12 Disc w/ CR	75.7"	Heavy \geq 240	H29010076BASS037	85.6"	76.8"	242.5"	0.8	705	642	1237	1266	98.4 Lbs.	1018	2036
230kV	14 Disc w/ CR	88"	Medium \geq 190	H29010088CASS027	97.3"	88.8"	209.5"	1.3	806	727	1418	1438	97.5 Lbs.	906	1812
230kV	14 Disc w/ CR	88"	Heavy \geq 240	H29010088AASS034	97.3"	88.8"	241.0"	1.0	806	727	1418	1438	102.0 Lbs.	906	1812

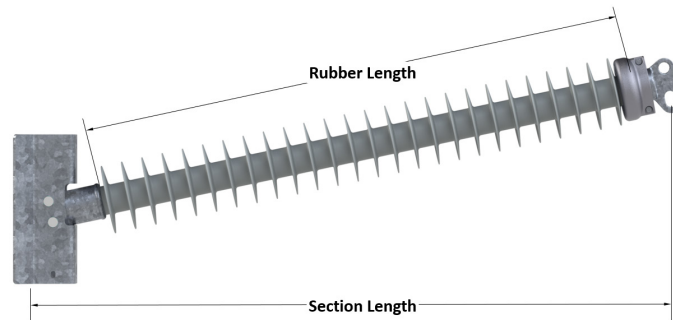
Design Notes:

- Published electrical values include the corona ring
- For additional application notes, see page TAI2



TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

HV Polymer 3.0" Horizontal Line Post

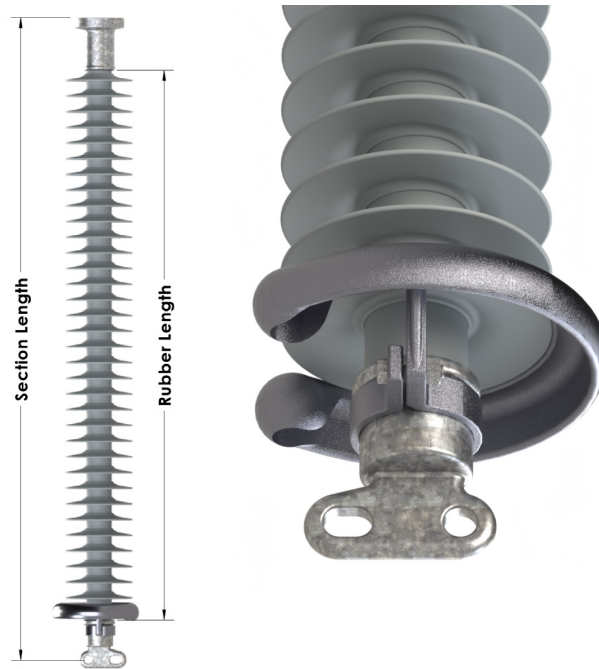


DESIGN CHARACTERISTICS									FLASHOVER VALUES (kV)						
VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT	MDCL	SCL
69kV	6 Disc	38.8"	Medium \geq 55	H31010036CXSS007	49.0"	39.0"	70.1"	1.8	375	347	646	729	91.6 Lbs.	3351	6702
69kV	6 Disc	38.8"	Heavy \geq 70	H31010036CXSS007	49.0"	39.0"	70.1"	1.8	375	347	646	729	91.6 Lbs.	3351	6702
115kV	8 Disc	51.1"	Medium \geq 95	H31010048CXSS010	60.5"	51"	96.7"	1.8	482	446	836	884	101.5 Lbs.	2584	5168
115kV	8 Disc	51.1"	Heavy \geq 120	H31010048AXSS018	60.5"	51"	135.6"	0.9	482	446	836	884	107.9 Lbs.	2584	5168
115kV	8 Disc w/ CR	51.1"	Medium \geq 95	H31010050CASS010	62.4"	51.7"	98.7"	1.8	488	451	847	895	104.3 Lbs.	2537	5074
115kV	8 Disc w/ CR	51.1"	Heavy \geq 120	H31010050CASS015	62.4"	51.7"	123.0"	1.2	488	451	847	895	108.3 Lbs.	2537	5074
138kV	9 Disc	57.3"	Medium \geq 115	H31010054BXSS013	66.2"	57"	117.3"	1.5	534	493	931	974	107.6 Lbs.	2350	4700
138kV	9 Disc	57.3"	Heavy \geq 140	H31010054AXSS021	66.2"	57"	156.2"	0.9	534	493	931	974	114 Lbs.	2350	4700
138kV	9 Disc w/ CR	57.3"	Medium \geq 115	H31010056BASS014	68.2"	57.7"	124.1"	1.5	540	499	942	985	111.2 Lbs.	2180	4360
138kV	9 Disc w/ CR	57.3"	Heavy \geq 140	H31010056AASS021	68.2"	57.7"	158.2"	0.9	540	499	942	985	116.8 Lbs.	2180	4360
161kV	10 Disc	63.3"	Medium \geq 130	H31010060BXSS015	72"	63"	133"	1.5	586	539	1024	1064	112.9 Lbs.	2122	4244
161kV	10 Disc	63.3"	Heavy \geq 165	H31010060AXSS023	72"	63"	171.9"	0.9	586	539	1024	1064	119.3 Lbs.	2122	4244
161kV	10 Disc w/ CR	63.3"	Medium \geq 130	H31010062BASS015	73.9"	63.7"	135"	1.5	592	545	1035	1074	115.8 Lbs.	2064	4128
161kV	10 Disc w/ CR	63.3"	Heavy \geq 165	H31010062AASS024	73.9"	63.7"	178.8"	0.9	592	545	1035	1074	123 Lbs.	2064	4128
230kV	12 Disc w/ CR	75.7"	Medium \geq 190	H31010084CASS026	94.9"	85.7"	210.5"	1.2	780	705	1372	1394	138.3 Lbs.	1565	3130
230kV	12 Disc w/ CR	75.7"	Heavy \geq 240	H31010084AASS033	94.9"	85.7"	244.6"	0.9	780	705	1372	1394	143.9 Lbs.	1565	3130
230kV	14 Disc w/ CR	88"	Medium \geq 190	H31010090BASS022	100.7"	91.7"	197.1"	1.5	830	746	1461	1479	138.8 Lbs.	1456	2912
230kV	14 Disc w/ CR	88"	Heavy \geq 240	H31010090AASS035	100.7"	91.7"	260.3"	0.9	830	746	1461	1479	149.2 Lbs.	1456	2912

Design Notes:

- Published electrical values include the corona ring
- For additional application notes, see page TAI2





DESIGN CHARACTERISTICS

FLASHOVER VALUES (kV)

VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	FLASHOVER VALUES (kV)				WEIGHT	MDCL	SCL
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-			
230kV	12 Disc w/ CR	75.7"	Medium \geq 190	H25110076AARS029	84.8"	76.8"	206.5"	1.0	705	642	1237	1266	70.6 Lbs.	1042	2084
230kV	12 Disc w/ CR	75.7"	Heavy \geq 240	H25110076BARS037	84.8"	76.8"	242.5"	0.8	705	642	1237	1266	75.7 Lbs.	1042	2084
230kV	14 Disc w/ CR	88"	Medium \geq 190	H25110088CARS027	96.8"	88.8"	209.5"	1.3	806	727	1418	1438	74.8 Lbs.	924	1848
230kV	14 Disc w/ CR	88"	Heavy \geq 240	H25110088AARS034	96.8"	88.8"	241.0"	1.0	806	727	1418	1438	79.3 Lbs.	924	1848

Design Notes:

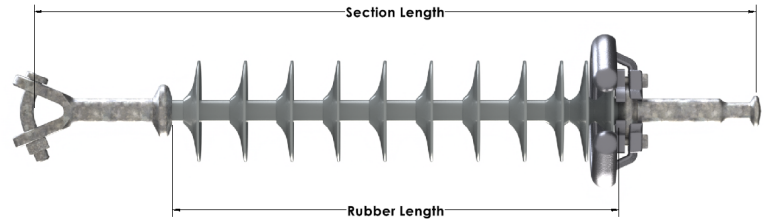
- Published electrical values include the corona ring
- For additional application notes, see page TAI2

TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

30k SML
EHV Polymer Suspension

INSULATOR STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



DESIGN CHARACTERISTICS

FLASHOVER VALUES (kV)

VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT
345kV	18 Disc	105.5"	Medium \geq 290	S54080106VBSS048	117.6"	106"	291"	1.1	1011	884	1672	1738	25.1 Lbs.
345kV	18 Disc	105.5"	Heavy \geq 360	S54080106VBAL057	117.6"	106.6"	361.3"	1.3	1015	888	1681	1746	31.6 Lbs.
345kV	20 Disc	117"	Medium \geq 290	S54080117VBSS045	128.6"	117"	290.3"	1.3	1091	951	1831	1898	24.7 Lbs.
345kV	20 Disc	117"	Heavy \geq 360	S54080117VBAL055	128.6"	117.6"	363.2"	1.5	1095	954	1840	1907	31.4 Lbs.
345kV	22 Disc	128.5"	Medium \geq 290	S54080129VBSS042	140.6"	129"	290.7"	1.5	1179	1029	2004	2072	24.4 Lbs.
345kV	22 Disc	128.5"	Heavy \geq 360	S54080129VBSS060	140.6"	129"	360.5"	1.0	1179	1029	2004	2072	29.1 Lbs.
345kV	18 Disc	105.5"	Medium \geq 290	S54080108VGSS048	119.6"	105.8"	293"	1.1	1009	882	1670	1735	27.4 Lbs.
345kV	18 Disc	105.5"	Heavy \geq 360	S54080108VGAL058	119.6"	105.8"	368.4"	1.3	1009	882	1670	1735	34.3 Lbs.
345kV	20 Disc	117"	Medium \geq 290	S54080120VGSS045	131.6"	117.8"	293.3"	1.3	1097	955	1843	1910	27.1 Lbs.
345kV	20 Disc	117"	Heavy \geq 360	S54080120VGAL054	131.6"	117.8"	362.4"	1.6	1097	955	1843	1910	33.5 Lbs.
345kV	22 Disc	128.5"	Medium \geq 290	S54080131VGSS042	142.6"	128.8"	292.7"	1.5	1177	1028	2001	2070	26.7 Lbs.
345kV	22 Disc	128.5"	Heavy \geq 360	S54080131VGSS060	142.6"	128.8"	362.5"	1.0	1177	1028	2001	2070	31.4 Lbs.
500kV	25 Disc	145.7"	Medium \geq 410	S54080148VV6S069	159.6"	145.8"	413.2"	1.0	1302	1144	2244	2314	39.5 Lbs.
500kV	25 Disc	145.7"	Heavy \geq 520	S54080148VV6L084	159.6"	145.8"	523.2"	1.3	1302	1144	2244	2314	49.7 Lbs.
500kV	26 Disc	151.5"	Medium \geq 410	S54080154VV6S067	165.6"	151.8"	411.4"	1.1	1346	1184	2330	2400	39.2 Lbs.
500kV	26 Disc	151.5"	Heavy \geq 520	S54080154VV6L082	165.6"	151.8"	520.2"	1.4	1346	1184	2330	2400	49.3 Lbs.
500kV	28 Disc	163"	Medium \geq 410	S54080166VV6S064	177.6"	163.8"	411.8"	1.2	1433	1261	2500	2571	38.9 Lbs.
500kV	28 Disc	163"	Heavy \geq 520	S54080166VV6L080	177.6"	163.8"	523.2"	1.5	1433	1261	2500	2571	49.1 Lbs.

Design Notes:

- Published electrical values include the corona ring
- Section 1: includes 12" CR on line end
- Section 2: includes 12" CR on line end and 8" CR on tower end
- Section 3: includes 17" CR on line end and 8" CR on tower end
- For additional application notes, see page TAI2

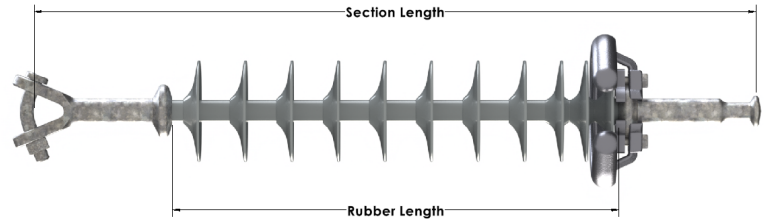


TRANSMISSION ASSEMBLY INSULATORS POLYMER DRY ARC EQUIVALENT FOR CERAMIC STRING

50k SML
EHV Polymer Suspension

INSULATOR STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	222 kN	111 kN



DESIGN CHARACTERISTICS

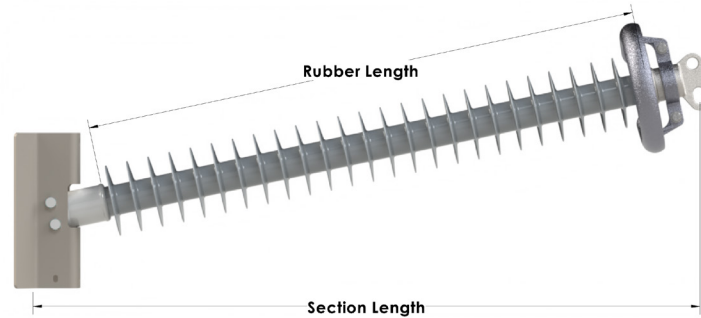
FLASHOVER VALUES (kV)

VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT
345kV	18 Disc	112.5"	Medium \geq 290	S24080113VBSS047	127.6"	113.1"	294.1"	1.2	1062	928	1775	1842	33.7 Lbs.
345kV	18 Disc	112.5"	Heavy \geq 360	S24080113VBAL057	127.6"	113.7"	368.3"	1.4	1067	931	1784	1850	40.9 Lbs.
345kV	20 Disc	124.8"	Medium \geq 290	S24080125VBSS044	139.6"	125.1"	294.5"	1.4	1150	1002	1948	2016	33.7 Lbs.
345kV	20 Disc	124.8"	Heavy \geq 360	S24080125VBAL053	139.6"	125.7"	362.2"	1.7	1155	1006	1957	2025	40.3 Lbs.
345kV	22 Disc	137.1"	Medium \geq 290	S24080137VBSS041	151.6"	137.1"	294.8"	1.6	1238	1085	2120	2189	33.6 Lbs.
345kV	22 Disc	137.1"	Heavy \geq 360	S24080137VBSS059	151.6"	137.1"	364.7"	1.1	1238	1085	2120	2189	39 Lbs.
345kV	18 Disc	112.5"	Medium \geq 290	S24080116VGSS046	130.6"	112.3"	293.2"	1.2	1057	923	1764	1830	35.7 Lbs.
345kV	18 Disc	112.5"	Heavy \geq 360	S24080116VGAL056	130.6"	112.3"	367.4"	1.5	1067	931	1784	1850	42.9 Lbs.
345kV	20 Disc	124.8"	Medium \geq 290	S24080129VGSS042	143.6"	125.3"	290.7"	1.5	1152	1003	1951	2019	35.5 Lbs.
345kV	20 Disc	124.8"	Heavy \geq 360	S24080129VGAL052	143.6"	125.3"	362.3"	1.8	1152	1003	1951	2019	42.4 Lbs.
345kV	22 Disc	137.1"	Medium \geq 290	S24080141VGSS039	155.6"	137.3"	291.1"	1.8	1240	1086	2123	2192	35.5 Lbs.
345kV	22 Disc	137.1"	Heavy \geq 360	S24080141VGSS057	155.6"	137.3"	360.9"	1.2	1240	1086	2123	2192	39 Lbs.
500kV	25 Disc	155.5"	Medium \geq 410	S24080159VV6S066	173.6"	155.3"	412.6"	1.2	1371	1206	2379	2450	49.8 Lbs.
500kV	25 Disc	155.5"	Heavy \geq 520	S24080159VV6L082	173.6"	155.3"	525.2"	1.4	1371	1206	2379	2450	60.6 Lbs.
500kV	26 Disc	161.6"	Medium \geq 410	S24080165VV6S065	179.6"	161.3"	414.7"	1.3	1415	1245	2464	2535	49.9 Lbs.
500kV	26 Disc	161.6"	Heavy \geq 520	S24080165VV6L080	179.6"	161.3"	522.2"	1.5	1415	1245	2464	2535	60.3 Lbs.
500kV	28 Disc	178.9"	Medium \geq 410	S24080183VV6S060	197.6"	179.3"	413.3"	1.5	1547	1358	2717	2788	49.7 Lbs.
500kV	28 Disc	178.9"	Heavy \geq 520	S24080183VV6L076	197.6"	179.3"	522.1"	1.8	1547	1358	2717	2788	60.1 Lbs.

Design Notes:

- Published electrical values include the corona ring
- Section 1: includes 12" CR on line end
- Section 2: includes 12" CR on line end and 8" CR on tower end
- Section 3: includes 17" CR on line end and 8" CR on tower end
- For additional application notes, see page TAI2

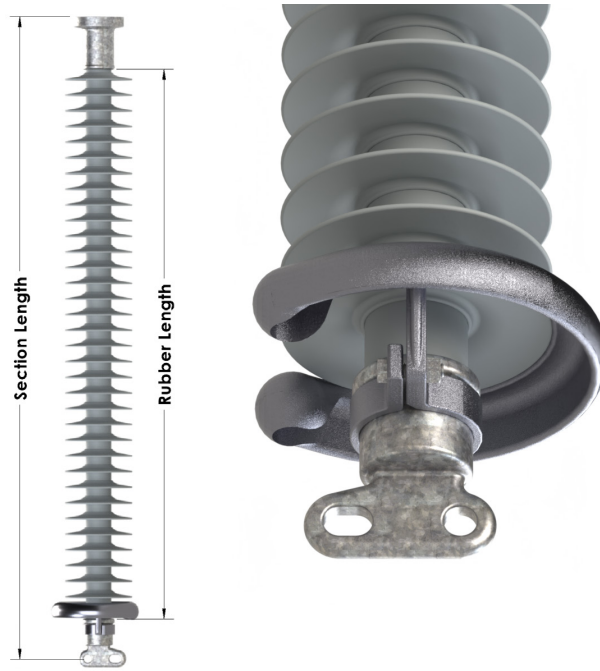




DESIGN CHARACTERISTICS									FLASHOVER VALUES (kV)						
VOLTAGE	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS	CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	60 Hz DRY	60 Hz WET	CIFO+	CIFO-	WEIGHT	MDCL	SCL
345kV	18 Disc	112.5"	Medium \geq 290	H31010116CBSS036	125.5"	116.4"	291.2"	1.2	1033	878	1813	1821	170.1 Lbs.	1146	2292
345kV	18 Disc	112.5"	Heavy \geq 360	H31010116BBSS057	125.5"	116.4"	393.4"	0.8	1033	878	1813	1821	186.9 Lbs.	1146	2292
345kV	20 Disc	124.8"	Medium \geq 290	H31010128CBSS039	137.0"	128.4"	317.8"	1.2	1128	934	1976	1982	179.9 Lbs.	1055	2110
345kV	20 Disc	124.8"	Heavy \geq 360	H31010128ABSS050	137.0"	128.4"	371.4"	0.9	1128	934	1976	1982	188.7 Lbs.	1055	2110
345kV	22 Disc	137.1"	Medium \geq 290	H31010140BBSS035	148.5"	140.4"	310.3"	1.5	1223	990	2134	2140	184.2 Lbs.	970	1940
345kV	22 Disc	137.1"	Heavy \geq 360	H31010140ABSS055	148.5"	140.4"	407.7"	0.9	1223	990	2134	2140	200.2 Lbs.	970	1940
500kV	25 Disc	155.5"	Medium \geq 410	H31010158AHSS062	165.1"	156.1"	459.8"	0.9"	1343	1063	2333	2342	225.4 Lbs.	872	1744
500kV	25 Disc	155.5"	Heavy \geq 520	H31010158BHSS078	165.1"	156.1"	537.6"	0.8"	1343	1063	2333	2342	238.2 Lbs.	872	1744
500kV	26 Disc	161.6"	Medium \geq 410	H31010164CHSS051	170.8"	162.1"	412.2"	1.2"	1389	1091	2408	2417	220.3 Lbs.	845	1690
500kV	26 Disc	161.6"	Heavy \geq 520	H31010164BHSS081	170.8"	162.1"	558.2"	0.8"	1389	1091	2408	2417	244.3 Lbs.	845	1690
500kV	28 Disc	178.9"	Medium \geq 410	H31010182CHSS056	188"	180.1"	454.6"	1.2"	1523	1175	2629	2639	230.5 Lbs.	769	1538
500kV	28 Disc	178.9"	Heavy \geq 520	H31010182AHSS072	188"	180.1"	532.4"	0.9"	1523	1175	2629	2639	247.6 Lbs.	769	1538

Design Notes:

- Published electrical values include the corona ring
- 345kV includes 12" CR on line end, 500kV includes 17" CR on line end and 12" CR on tower end
- For additional application notes, see page TAI2



UNDERHUNG LP DESIGNS

VOLTAGE	DESIGN CHARACTERISTICS				CATALOG NUMBER	SECTION LENGTH	DRY ARC	LEAKAGE	S/P	FLASHOVER VALUES (kV)				WEIGHT	MDCL	SCL
	EQUIVALENT DISC NO.	DRY ARC	LEAKAGE CLASS							60 Hz DRY	60 Hz WET	CIFO+	CIFO-			
345kV	18 Disc	112.5"	Medium \geq 290		H35110116CBRS036	128.5"	116.4"	291.2"	1.2	1033	878	1813	1821	133.8 Lbs.	1178	2356
345kV	18 Disc	112.5"	Heavy \geq 360		H35110116BBRS057	128.5"	116.4"	393.4"	0.8	1033	878	1813	1821	150.6 Lbs.	1178	2356
345kV	20 Disc	124.8"	Medium \geq 290		H35110128CBRS039	140.5"	128.4"	317.8"	1.2	1128	934	1976	1982	143.6 Lbs.	1093	2186
345kV	20 Disc	124.8"	Heavy \geq 360		H35110128ABRS050	140.5"	128.4"	371.4"	0.9	1128	934	1976	1982	152.4 Lbs.	1093	2186
345kV	22 Disc	137.1"	Medium \geq 290		H35110140BBRS035	152.5"	140.4"	310.3"	1.5	1223	990	2134	2140	147.9 Lbs.	1008	2016
345kV	22 Disc	137.1"	Heavy \geq 360		H35110140ABRS055	152.5"	140.4"	407.7"	0.9	1223	990	2134	2140	163.9 Lbs.	1008	2016
500kV	25 Disc	155.5"	Medium \geq 410		H35110164CHRS051	170.8"	162.1"	412.2"	1.2	1389	1091	2408	2417	221.4 Lbs.	845	1690
500kV	25 Disc	155.5"	Heavy \geq 520		H35110164AHR065	170.8"	162.1"	480"	0.9	1389	1091	2408	2417	232.6 Lbs.	845	1690
500kV	26 Disc	161.6"	Medium \geq 410		H35110176CHRS054	182.3"	174.1"	438.8"	1.2	1478	1147	2555	2566	231.3 Lbs.	796	1592
500kV	26 Disc	161.6"	Heavy \geq 520		H35110176AHR069	182.3"	174.1"	511.8"	0.9	1478	1147	2555	2566	242 Lbs.	796	1592
500kV	28 Disc	178.9"	Medium \geq 410		H35110182CHRS056	188"	180.1"	454.6"	1.2	1523	1175	2639	2639	236.6 Lbs.	769	1538
500kV	28 Disc	178.9"	Heavy \geq 520		H35110182AHR072	188"	180.1"	532.4"	0.9	1523	1175	2639	2639	247.8 Lbs.	769	1538

Design Notes:

- Published electrical values include the corona ring
- 345kV includes 12" CR on line end, 500kV includes 17" CR on line end and 12" CR on tower end
- For additional application notes, see page TAI2

CATALOG NUMBER	MG523Z	MG525Z	MG528Z	MG5211Z	MG300Z	MG420Z	MG550Z
ANSI / IEC Class	52-3H	52-5H	52-8H	52-11	IEC-24	IEC-28	IEC-32
Coupling Type	B	J	K	K	24	28	32
MECHANICAL							
Min. Mechanical	22,000 Lbs.	30,000 Lbs.	40,000 Lbs.	50,000 Lbs.	67,442 Lbs.	94,420 Lbs.	123,645 Lbs.
Failing Load	98 kN	133 kN	178 kN	222 kN	300 kN	420 kN	550 kN
Proof Routine Test	11,000 Lbs.	15,000 Lbs.	20,000 Lbs.	25,000 Lbs.	33,721 Lbs.	47,210 Lbs.	61,822 Lbs.
Mechanical Load	49 kN	67 kN	89 kN	111 kN	150 kN	210 kN	275 kN
Impact Strength	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.	400 in - Lbs.
DIMENSIONS							
Shell	10.0 in	10.0 in	11.0 in	11.0 in	12.6 in	14.2 in	14.2 in
Diameter	255 mm	255 mm	280 mm	280 mm	320 mm	360 mm	360 mm
Coupling	5.75 in	5.75 in	5.75 in	6.14 in	7.68 in	8.07 in	9.45 in
Length	146 mm	146 mm	146 mm	156 mm	195 mm	205 mm	240 mm
Leakage	12.6 in	12.6 in	15.7 in	15.7 in	19.1 in	21.7 in	25.0 in
Distance	321 mm	321 mm	400 mm	400 mm	485 mm	550 mm	635 mm
ELECTRICAL							
Dry Flashover	80 kV	80 kV	80 kV	80 kV	85 kV	90 kV	90 kV
Wet Flashover	50 kV	50 kV	50 kV	50 kV	50 kV	55 kV	55 kV
CIFO+	125 kV	125 kV	125 kV	140 kV	130 kV	140 kV	140 kV
CIFO-	130 kV	130 kV	130 kV	140 kV	130 kV	140 kV	150 kV
Puncture Voltage	130 kV	130 kV	130 kV	130 kV	130 kV	130 kV	130 kV
RIV Test Voltage	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV	10 kV
Max. RIV at 1 MHz	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V	50 μ V
PACKAGING							
Weight	8.0 Lbs.	8.8 Lbs.	13.2 Lbs.	15.7 Lbs.	23.4 Lbs.	35.3 Lbs.	39.2 Lbs.
No. of Units Wirebound	Qty: 6	Qty: 6	Qty: 5	Qty: 5	Qty: 5	Qty: 2	Qty: 2
Weight / Wirebound	49.9 Lbs.	54.9 Lbs.	68.6 Lbs.	81.6 Lbs.	121.7 Lbs.	73.4 Lbs.	81.5 Lbs.
No. of Units / Pallet	Qty: 144	Qty: 144	Qty: 80	Qty: 80	Qty: 45	Qty: 36	Qty: 36
Weight / Pallet	1210 Lbs.	1331 Lbs.	1109 Lbs.	1319 Lbs.	1106 Lbs.	1334 Lbs.	1482 Lbs.

MP



TRANSMISSION INSULATORS

LINE POST



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP

CORONA RINGS

Line post corona rings come in three standard sizes: 6", 12", and 17". They are designed for use on both our extruded and molded insulators. Below is a table showing the MPS recommendations for selecting the proper corona ring size for your application.

LINE POST CORONA RING GUIDE

VOLTAGE	115kV	138kV	161kV	230kV	345kV	500kV
Designation Within Insulator Catalog Number	X	X	X	A	B	H
Line End	-	-	-	6"	12"	17"
Tower End	-	-	-	-	-	12"

Notes

- Corona rings are available for 115kV - 161kV if required by customer
- 2.5" line post not recommended for 500kV
- Adding a corona ring will reduce the dry arc distance roughly 1.5 – 3.0"
- The corona ring is represented in the insulator catalog number in the 11th digit
- Example:
 - 2.5" extruded line post gain base / drop tongue insulator with no corona ring
 - H29010066AXSS025
 - 2.5" extruded line post gain base / drop tongue insulator with corona ring
 - H29010066AASS025

Features

- Unidirectional fit
- 2 piece captive collar
- Easy installation
- Hot stick workable

1.5" LINE POST

H0	40	U0	010	M	X	SS	005
CORE ROD	TOWER EF	LINE EF	RUBBER LENGTH	MOLDED SHED SPACING	CORONA RING	SHED PATTERN	SHED COUNT

H0 CORE ROD

H0 = 1.5"

40 TOWER EF

40 = 3/4" - 10 Stud Base
90 = Gain Base

U0 LINE EF

U0 = Universal Trunnion™
UT = Universal Trunnion™ (Tin Plated)
20 = Horizontal Trunnion
60 = Vertical Trunnion
70 = F-Neck (Aluminum)
7F = F-Neck (Ductile Iron)

010 RUBBER LENGTH

Linear Distance EF to EF

M MOLDED SHED SPACING

M = Standard

X CORONA RING

X = None

SS SHED PATTERN

SS = Standard

005 SHED COUNT

1.75" LINE POST

H7	40	U0	016	M	X	SS	008
CORE ROD	TOWER EF	LINE EF	RUBBER LENGTH	MOLDED SHED SPACING	CORONA RING	SHED PATTERN	SHED COUNT

H7 CORE ROD

H7 = 1.75"

40 TOWER EF

40 = 3/4" - 10 Stud Base
42 = 7/8" - 9 Stud Base
90 = Gain Base

U0 LINE EF

U0 = Universal Trunnion™
U2 = TP Universal Trunnion™
20 = Horizontal Trunnion
60 = Vertical Trunnion
70 = F-Neck (Aluminum)
7F = F-Neck (Ductile Iron)
10 = Drop Tongue

016 RUBBER LENGTH

Linear Distance EF to EF

M MOLDED SHED SPACING

M = Standard

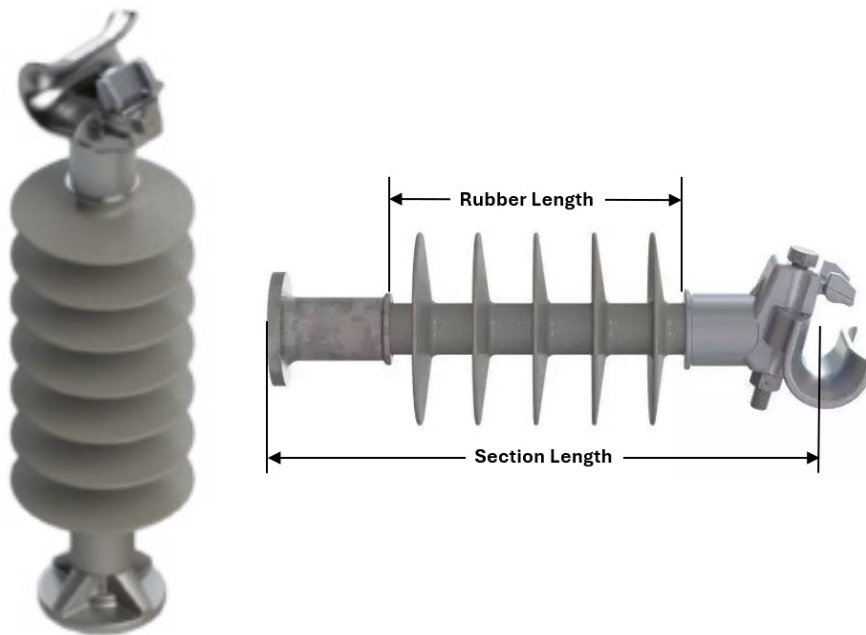
X CORONA RING

X = None

SS SHED PATTERN

SS = Standard

008 SHED COUNT



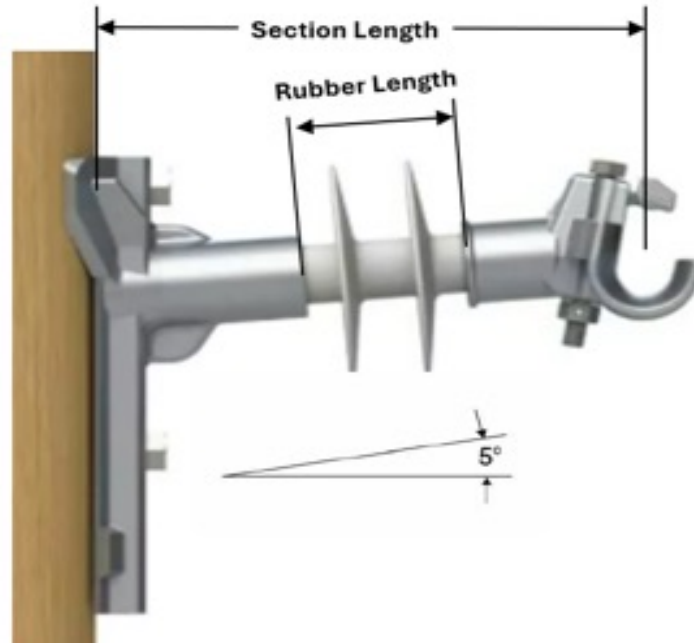
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H040U0004MXSS002	15 kV	4.0 [101]	13.7 [348]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	3	90
H040U0006MXSS003	28 kV	5.9 [151]	15.2 [385]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	3	90
H040U0008MXSS004	35 kV	7.9 [201]	17.1 [433]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	3	90
H040U0010MXSS005	46 kV	9.9 [252]	19.1 [485]	12.7 [322]	31.4 [798]	159	117	244	277	2800	1350	3	90
H740U0010MXSS005	46 kV	9.8 [249]	18.8 [478]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	40
H740U0012MXSS006	46 kV	11.8 [300]	20.9 [531]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	40
H740U0014MXSS007	46 kV	13.8 [351]	22.9 [582]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	40
H740U0016MXSS008	69 kV	15.9 [404]	25.0 [634]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	40
H740U0018MXSS009	69 kV	18.0 [456]	27.0 [687]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	40

End Fitting Materials:

- Stud base - ductile iron, galvanized
- Universal trunnion™ - aluminum

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- Universal clamp range 0.20" to 1.34"



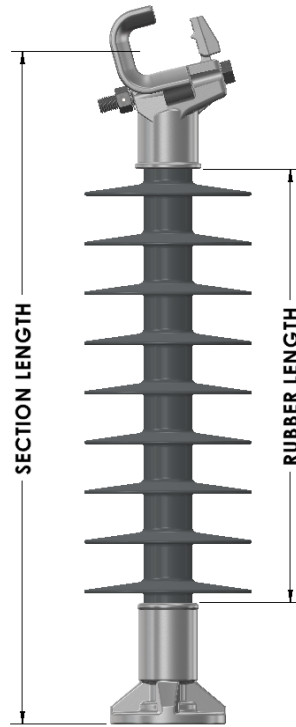
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H090U0004MXSS002	15 kV	4.0 [101]	14.2 [361]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	2	40
H090U0006MXSS003	28 kV	5.9 [151]	16.1 [409]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	2	40
H090U0008MXSS004	35 kV	7.9 [201]	17.1 [433]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	2	40
H790U0010MXSS005	46 kV	9.8 [249]	19.8 [503]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	30
H790U0012MXSS006	46 kV	11.8 [300]	21.6 [549]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	30
H790U0014MXSS007	46 kV	13.8 [351]	23.7 [602]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	20
H790U0016MXSS008	69 kV	15.9 [404]	25.9 [658]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	20
H790U0018MXSS009	69 kV	18.0 [456]	27.7 [704]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	20

End Fitting Materials:

- Gain base - aluminum
- Universal trunnion™ - aluminum

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- Universal clamp range 0.20" to 1.34"



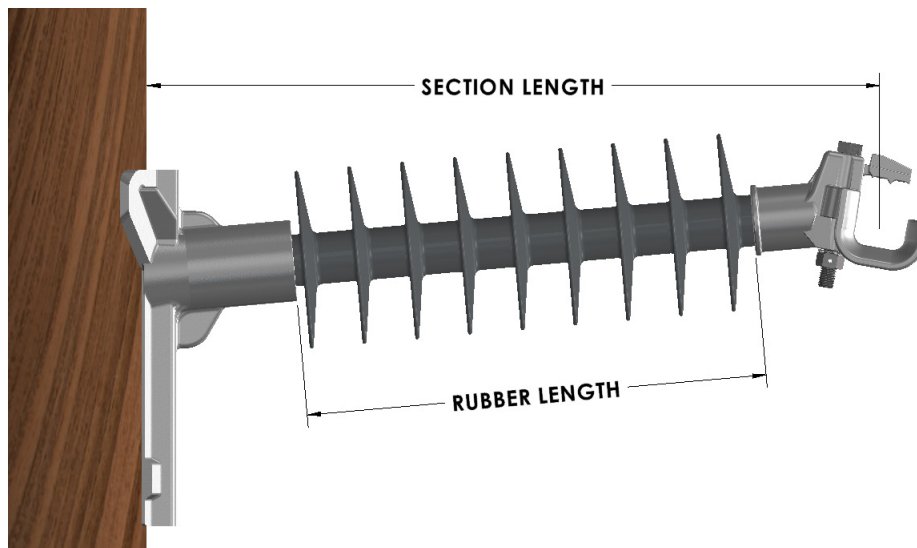
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H740U2010MXSS005	46 kV	9.8 [249]	19.1 [486]	12.6 [321]	32 [817]	163	117	230	275	2800	1350	2	40
H740U2012MXSS006	46 kV	11.8 [300]	21.2 [539]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	40
H740U2014MXSS007	46 kV	13.8 [351]	23.2 [590]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	40
H740U2016MXSS008	69 kV	15.9 [404]	25.3 [642]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	40
H740U2018MXSS009	69 kV	18.0 [456]	27.3 [695]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	40

End Fitting Materials:

- Stud base - ductile iron, galvanized
- Universal trunnion™ - aluminum

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- Universal clamp range 0.563" [14.3mm] to 0.927" [23.55mm]



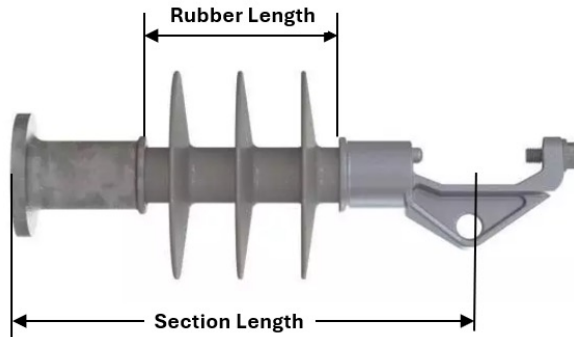
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						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H790U2010MXSS005	46 kV	9.8 [249]	20.1 [511]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	30
H790U2012MXSS006	46 kV	11.8 [300]	21.9 [557]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	30
H790U2014MXSS007	46 kV	13.8 [351]	24.0 [610]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	20
H790U2016MXSS008	69 kV	15.9 [404]	26.2 [666]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	20
H790U2018MXSS009	69 kV	18.0 [456]	28.0 [712]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	20

End Fitting Materials:

- Gain base - aluminum
- Universal trunnion™ - aluminum

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- Universal clamp range 0.563" [14.3mm] to 0.927" [23.55mm]



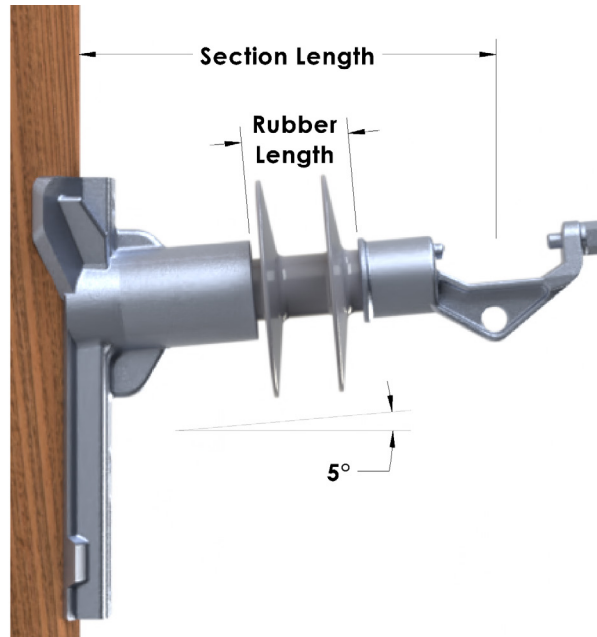
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H04020004MXSS002	15 kV	4.0 [101]	12.0 [306]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	3	90
H04020006MXSS003	28 kV	5.9 [151]	14.0 [356]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	3	90
H04020008MXSS004	35 kV	7.9 [201]	16.0 [406]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	3	90
H04020010MXSS005	46 kV	9.9 [252]	18.0 [456]	12.7 [322]	31.4 [798]	159	117	244	277	2800	1350	3	90
H74020010MXSS005	46 kV	9.8 [249]	18.8 [478]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	60
H74020012MXSS006	46 kV	11.8 [300]	20.9 [531]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	40
H74020014MXSS007	46 kV	13.8 [351]	22.9 [582]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	40
H74020016MXSS008	69 kV	15.9 [404]	25.0 [634]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	40
H74020018MXSS009	69 kV	18.0 [456]	27.0 [687]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	40

End Fitting Materials:

- Stud base - ductile iron, galvanized
- Horizontal trunnion - aluminum
- 5/8"-11" trunnion bolt

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- For use with ACTS clamps - see clamp section



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H09020004MXSS002	15 kV	4.0 [101]	13.7 [348]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	2	40
H09020006MXSS003	28 kV	5.9 [151]	15.2 [385]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	2	40
H09020008MXSS004	35 kV	7.9 [201]	17.1 [433]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	2	30
H79020010MXSS005	46 kV	9.8 [249]	19.6 [498]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	30
H79020012MXSS006	46 kV	11.8 [300]	21.6 [549]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	30
H79020014MXSS007	46 kV	13.8 [351]	23.7 [602]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	20
H79020016MXSS008	69 kV	15.9 [404]	25.7 [653]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	20
H79020018MXSS009	69 kV	18.0 [456]	27.5 [699]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	20

End Fitting Materials:

- Gain base - aluminum
- Horizontal trunnion - aluminum
- 5/8"-11" trunnion bolt

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- For use with ACTS clamps - see clamp section



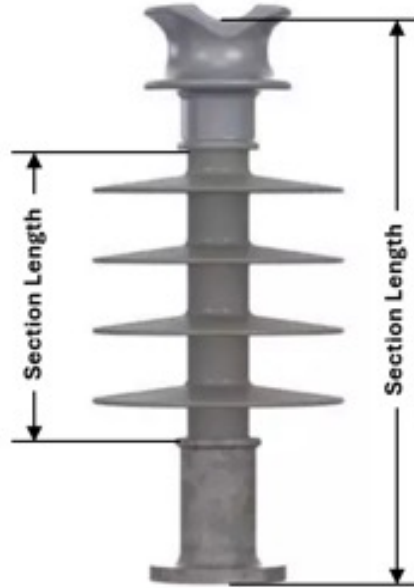
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H04060004MXSS002	15 kV	4.0 [101]	12.7 [323]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	3	90
H04060006MXSS003	28 kV	5.9 [151]	14.7 [373]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	3	90
H04060008MXSS004	35 kV	7.9 [201]	16.7 [423]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	3	90
H04060010MXSS005	46 kV	9.9 [252]	18.6 [473]	12.7 [322]	31.4 [798]	159	117	244	277	2800	1350	3	90
H74060010MXSS005	46 kV	9.8 [249]	18.9 [479]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	60
H74060012MXSS006	46 kV	11.8 [300]	20.9 [531]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	40
H74060014MXSS007	46 kV	13.8 [351]	22.9 [582]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	40
H74060016MXSS008	69 kV	15.9 [404]	25.1 [638]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	40
H74060018MXSS009	69 kV	18.0 [456]	27.0 [687]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	40

End Fitting Materials:

- Stud base - ductile iron, galvanized
- Horizontal trunnion - aluminum
- 5/8"-11" trunnion bolt

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]
- For use with ACTS clamps - see clamp section



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH in/[mm]	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)		PACKAGING UNITS	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL	CTN	PALLET
H04070004MXSS002	15 kV	4.0 [101]	11.7 [297]	6.2 [158]	12.2 [310]	88	59	136	163	2800	1350	3	90
H04070006MXSS003	28 kV	5.9 [151]	13.7 [347]	8.2 [209]	18.3 [465]	112	84	170	209	2800	1350	3	90
H04070008MXSS004	35 kV	7.9 [201]	15.6 [397]	10.2 [259]	24.4 [620]	135	96	198	228	2800	1350	3	90
H04070010MXSS005	46 kV	9.9 [252]	17.6 [447]	12.7 [322]	31.4 [798]	159	117	244	277	2800	1350	3	90
H74070010MXSS005	46 kV	9.8 [249]	18.3 [465]	12.6 [321]	32.2 [817]	163	117	230	275	2800	1350	2	60
H74070012MXSS006	46 kV	11.8 [300]	20.2 [513]	14.7 [373]	38.5 [978]	170	135	262	310	2800	1350	2	40
H74070014MXSS007	46 kV	13.8 [351]	22.2 [564]	16.7 [423]	45.0 [1142]	187	153	293	343	2800	1350	2	40
H74070016MXSS008	69 kV	15.9 [404]	24.3 [617]	18.4 [467]	51.5 [1308]	211	169	320	372	2800	1350	2	40
H74070018MXSS009	69 kV	18.0 [456]	26.5 [673]	20.8 [529]	58.2 [1478]	232	185	358	411	2470	1235	2	40

End Fitting Materials:

- Stud base - ductile iron, galvanized
- F-neck - aluminum

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22kN]

H2	90	10	043	M	X	SS	022
CORE ROD	TOWER EF	LINE EF	RUBBER LENGTH	MOLDED/EXTRUDED	CORONA RING	SHED PATTERN	SHED COUNT

H2 CORE ROD

H2 = 2.5"

90 TOWER EF

- 10 = Flat Base 12 Deg.
- 11 = Flat Base 0 Deg.
- 1C = Fixed Flat
- 13 = Flat Base / 13 x 8
- 50 = 5" Bolt Circle
- 90 = Gain Base 12 Deg.
- 91 = Gain Base 0 Deg.
- 92 = Gain 12 Deg. / 14" Spacing
- 9C = Fixed Gain Base 12 Deg.

10 LINE EF

- 10 = Drop Tongue
- 20 = Trunnion
- 50 = 5" Bolt Circle
- 60 = Vertical Trunnion
- C0 = Ext. Drop Tongue
- U0 = Universal Trunnion™

043 RUBBER LENGTH

Linear Distance EF to EF

M MOLDED/EXTRUDED SHED SPACING

- M = Standard
- A = 2.5" Incremental Spacing
- B = 2.0" Incremental Spacing
- C = 1.6" Incremental Spacing

X CORONA RING

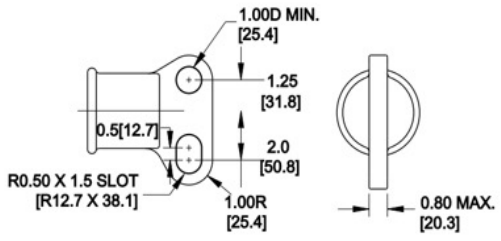
Tower	Line
X = None	X = None
A = None	A = 6"
B = None	B = 12"
C = None	C = 17"
E = 12"	E = 12"

SS SHED PATTERN

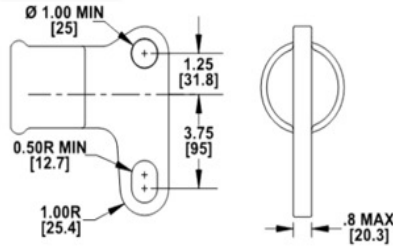
- SS = Standard
- RS = Reverse Shed

022 SHED COUNT

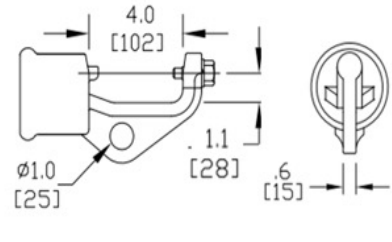




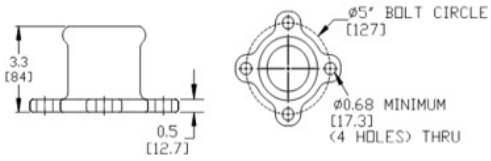
10 - DROPTONGUE



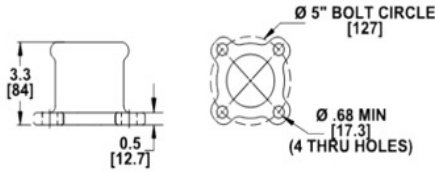
C0 - EXTENDED DROPTONGUE



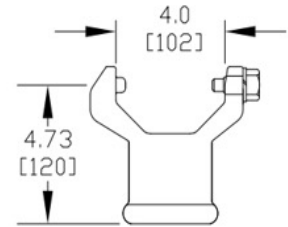
20 - HORIZONTAL TRUNNION



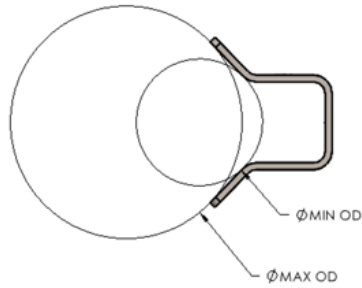
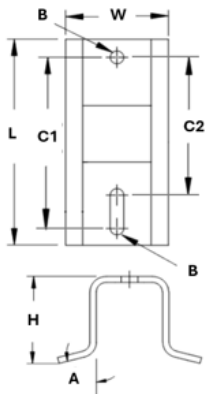
50 - 5" BOLT CIRCLE (LINE END)



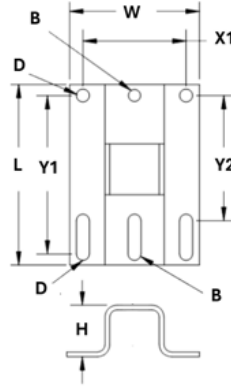
51 - 5" BOLT CIRCLE ROTATED 45° (LINE END)



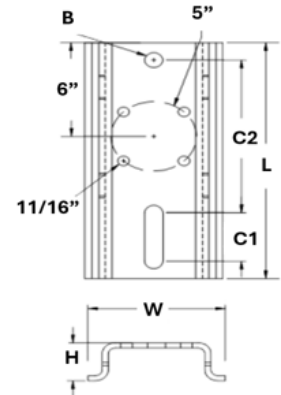
60 - VERTICAL TRUNNION



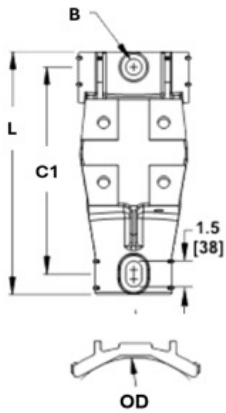
GAIN BASES



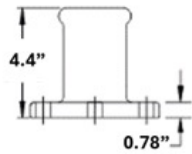
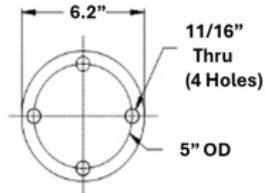
FLAT BASES



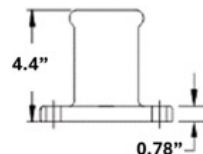
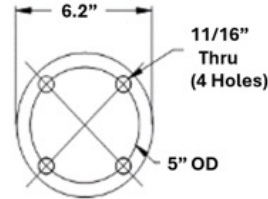
HS GAIN BASE



9C - CAST GAIN



50 = 5" BOLT CIRCLE



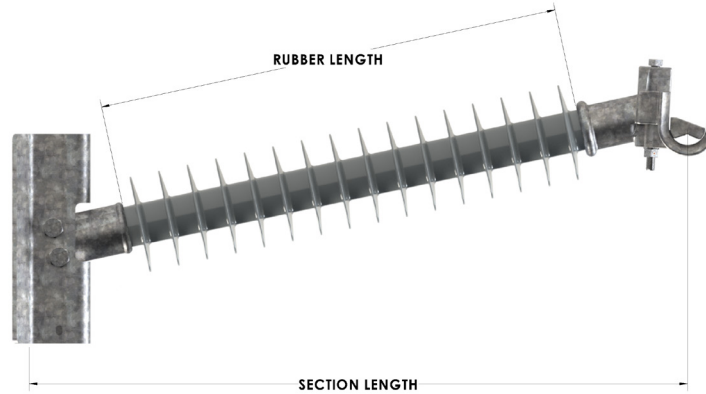
51 = 5" BOLT CIRCLE ROTATED 45°

CONTINUE TO NEXT PAGE...

CATALOG DIGIT	BASE TYPE	UPSWEEP ANGLE - A	CENTER MOUNT				POLE DIAMETER		BASE OVERALL DIM.			FLAT MOUNT PATTERN				
			SPACING C1	SPACING C2	HOLE B	GAIN ANGLE - A	MIN	MAX	LENGTH L	WIDTH W	HEIGHT H	SPACING W X1	SPACING W X2	SPACING L Y1	SPACING L Y2	HOLE D
90	Gain	12°	12"	10"	0.94"	46°	7.5"	20"	14"	8"	5.8"	-	-	-	-	-
91	Gain	0°	14"	12"	0.94"	46°	7.5"	20"	16.5"	8"	5.8"	-	-	-	-	-
92	Gain	12°	14"	12"	0.94"	46°	7.5"	20"	16.5"	8"	5.8"	-	-	-	-	-
93	Gain	12°	12"	14"	1.06"	46°	7.5"	20"	16.5"	8"	5.8"	-	-	-	-	-
94	Gain	12°	12"	-	0.94"	60°	8"	24"	14"	8"	5.8"	-	-	-	-	-
95	Gain	12°	14"	12"	0.94"	60°	8"	24"	16.5"	8"	5.5"	-	-	-	-	-
96	Gain	12°	12"	10"	1.06"	60°	8"	24"	14"	8"	5.2"	-	-	-	-	-
9B	Gain	12°	14"	12"	1.13"	75°	12"	30"	16.5"	-	-	-	-	-	-	-
9C	Cast Gain Base	12°	12"	-	0.95"	-	7"	16"	14.1"	9.6"	2.8"	-	-	-	-	-
9L	HS Gain	0°	14"	12"	1.13"	-	8"	24"	17"	9.6"	2.8"	-	-	-	-	-
10	Flat	12°	12"	10"	0.94"	-	-	-	14.5"	10"	4.0"	8"	-	12"	10"	0.83"
11	Flat	0°	12"	10"	0.94"	-	-	-	14.5"	10"	4.0"	8"	-	12"	10"	0.83"
13	Flat	12°	13"	10"	0.94"	-	-	-	15"	10"	4.0"	8"	-	13"	10"	0.83"
50	BC	0°	-	-	-	-	-	-	6.2"	6.2"	4.4"	4 Hole - 5" Ø (+)				
51	BC	0°	-	-	-	-	-	-	6.2"	6.2"	4.4"	4 Hole - 5" Ø (x)				

Base Materials:

- Gain base - steel, galvanized
- Flat base - steel, galvanized
- HS gain base - steel, galvanized
- Cast gain - ductile iron, galvanized
- Bolt circle - ductile iron, galvanized



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H290U0015MXSS008	46 kV	15"	28.4 [721]	17.7 [450]	42.6 [1082]	183	163	309	392	8412	4206
H290U0017MXSS009	46 kV	17"	30.3 [770]	19.7 [500]	47.9 [1217]	201	180	340	427	7622	3811
H290U0019MXSS010	46 kV	19"	32.3 [820]	21.7 [551]	53.2 [1351]	219	198	371	461	6946	3473
H290U0021MXSS011	46 kV	21"	34.2 [869]	23.7 [602]	58.5 [1486]	237	216	403	496	6416	3208
H290U0023MXSS012	69 kV	23"	36.2 [919]	25.6 [650]	63.8 [1621]	254	232	432	527	6030	3015
H290U0025MXSS013	69 kV	25"	38.1 [968]	27.6 [701]	69.1 [1755]	273	250	465	560	5508	2754
H290U0027MXSS014	69 kV	27"	40.1 [1019]	29.5 [749]	74.4 [1890]	290	266	495	589	5200	2600
H290U0029MXSS015	69 kV	29"	42 [1067]	31.5 [800]	79.7 [2024]	308	284	527	621	4878	2439
H290U0031MXSS016	69 kV	31"	44 [1118]	33.4 [848]	85 [2159]	325	300	557	649	4676	2338
H290U0033MXSS017	69-115 kV	33"	46 [1168]	35.4 [899]	90.3 [2294]	343	317	589	678	4340	2170
H290U0035MXSS018	115 kV	35"	47.9 [1217]	37.3 [947]	95.6 [2428]	360	333	618	705	4152	2076
H290U0037MXSS019	115 kV	37"	49.9 [1267]	39.3 [998]	100.9 [2563]	378	350	651	733	3990	1995
H290U0039MXSS020	115 kV	39"	51.8 [1316]	41.2 [1046]	106.1 [2695]	395	366	680	759	3800	1900
H290U0041MXSS021	115 kV	41"	53.8 [1367]	42.2 [1097]	111.4 [2830]	412	382	712	785	3660	1830
H290U0043MXSS022	115-138 kV	43"	55.7 [1415]	45.1 [1146]	116.1 [2949]	429	398	742	809	3470	1735
H290U0045MXSS023	138 kV	45"	57.7 [1466]	47 [1194]	122 [3099]	447	414	773	834	3330	1665
H290U0047MXSS024	138 kV	47"	59.6 [1514]	49 [1245]	127.3 [3233]	464	429	804	857	3186	1593
H290U0049MXSS025	138 kV	49"	61.6 [1565]	51 [1295]	132.6 [3368]	482	446	836	884	3092	1546
H290U0050MXSS026	138 kV	50"	62.6 [1590]	52.9 [1344]	137.9 [3503]	498	461	866	912	3036	1518

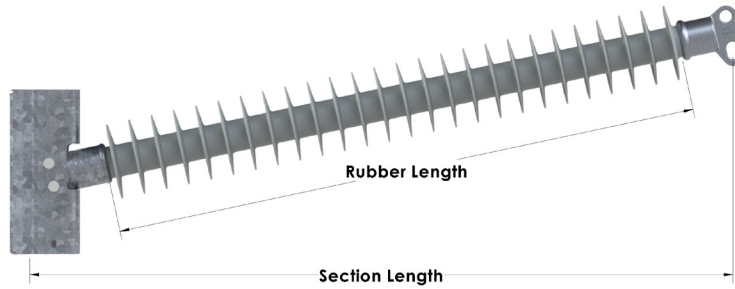
End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Universal trunnion™ - ductile iron, galvanized

Application Notes:

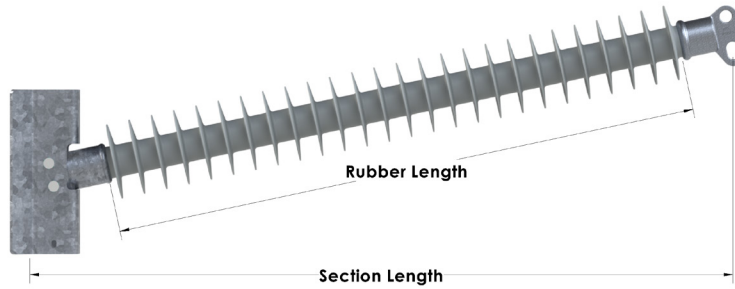
- Specified tensile load (STL) = 5,000 lbs. [22.2kN]
- See base and end fitting page for dimensions and options





CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H29010015MXSS008	46 kV	15"	25.9 [658]	17.7 [450]	42.6 [1082]	183	163	309	392	8412	4206
H29010017MXSS009	46 kV	17"	27.8 [706]	19.7 [500]	47.9 [1217]	201	180	340	427	7622	3811
H29010019MXSS010	46 kV	19"	30 [762]	21.7 [551]	53.2 [1351]	219	198	371	461	6946	3473
H29010021MXSS011	46 kV	21"	31.7 [805]	23.7 [602]	58.5 [1486]	237	216	403	496	6416	3208
H29010023MXSS012	69 kV	23"	34 [864]	25.6 [650]	63.8 [1621]	254	232	432	527	6030	3015
H29010025MXSS013	69 kV	25"	35.7 [907]	27.6 [701]	69.1 [1755]	273	250	465	560	5508	2754
H29010027MXSS014	69 kV	27"	38 [965]	29.5 [749]	74.4 [1890]	290	266	495	589	5200	2600
H29010029MXSS015	69 kV	29"	39.6 [1006]	31.5 [800]	79.7 [2024]	308	284	527	621	4878	2439
H29010031MXSS016	69 kV	31"	41 [1041]	33.4 [848]	85 [2159]	325	300	557	649	4676	2338
H29010033MXSS017	69-115 kV	33"	43.5 [1105]	35.4 [899]	90.3 [2294]	343	317	589	678	4340	2170
H29010035MXSS018	115 kV	35"	45 [1143]	37.3 [947]	95.6 [2428]	360	333	618	705	4152	2076
H29010037MXSS019	115 kV	37"	47.4 [1204]	39.3 [998]	100.9 [2563]	378	350	651	733	3990	1995
H29010039MXSS020	115 kV	39"	49 [1245]	41.2 [1046]	106.1 [2695]	395	366	680	759	3800	1900
H29010041MXSS021	115 kV	41"	51.3 [1303]	42.2 [1097]	111.4 [2830]	412	382	712	785	3660	1830
H29010043MXSS022	115-138 kV	43"	53 [1346]	45.1 [1146]	116.1 [2949]	429	398	742	809	3470	1735
H29010045MXSS023	138 kV	45"	55.2 [1402]	47 [1194]	122 [3099]	447	414	773	834	3330	1665
H29010047MXSS024	138 kV	47"	57 [1448]	49 [1245]	127.3 [3233]	464	429	804	857	3186	1593

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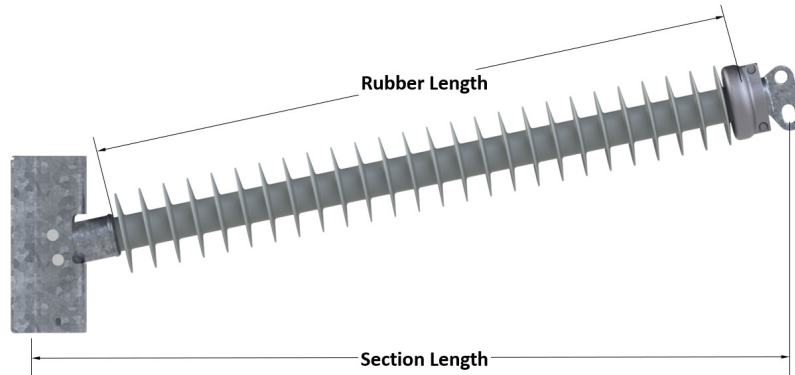
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H29010049MXSS025	138 kV	49"	59.1 [1501]	51 [1295]	132.6 [3368]	482	446	836	884	3092	1546
H29010050MXSS026	138 kV	50"	60 [1524]	52.9 [1344]	137.9 [3503]	498	461	866	912	3036	1518
H29010052CXSS016	138 kV	52"	62.1 [1577]	54.9 [1394]	124 [3150]	516	477	898	943	2936	1468
H29010052AXSS020	138 kV	52"	62.1 [1577]	54.9 [1394]	142 [3607]	516	477	898	943	2936	1468
H29010056CXSS017	138-161 kV	56"	66 [1676]	58.9 [1496]	132.5 [3366]	551	508	960	1003	2730	1365
H29010056AXSS021	138-161 kV	56"	66 [1676]	58.9 [1496]	150.5 [3823]	551	508	960	1003	2730	1365
H29010060CXSS018	161 kV	60"	69.9 [1775]	62.9 [1598]	141 [3581]	586	539	1023	1062	2542	1271
H29010060AXSS023	161 kV	60"	69.9 [1775]	62.9 [1598]	163.5 [4153]	586	539	1023	1062	2542	1271
H29010064BXSS016	161 kV	64"	73.8 [1875]	66.9 [1699]	136 [3454]	620	569	1085	1121	2412	1206
H29010064AXSS025	161 kV	64"	73.8 [1875]	66.9 [1699]	176.5 [4483]	620	569	1085	1121	2412	1206
H29010068BXSS017	161 kV	68"	77.8 [1976]	70.9 [1801]	144.5 [3670]	654	599	1147	1180	2282	1141
H29010068AXSS025	161 kV	68"	77.8 [1976]	70.9 [1801]	185 [4699]	654	599	1147	1180	2282	1141

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized

Application Notes:

- Specified tensile load (STL) = 15,000 lbs. [66.7kN]
- See base and end fitting page for dimensions and options



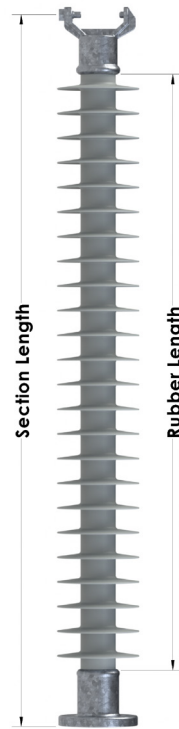
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H29010058CASS018	138-161 kV	58"	68 [1727]	58.8 [1494]	139 [3531]	550	507	959	1001	2626	1313
H29010058AASS022	138-161 kV	58"	69 [1753]	58.8 [1494]	157 [3988]	550	507	959	1001	2626	1313
H29010062CASS018	161 kV	62"	71.9 [1826]	62.8 [1595]	147.5 [3747]	585	538	1021	1061	2476	1238
H29010062AASS022	161 kV	62"	71.9 [1826]	62.8 [1595]	170 [4318]	585	538	1021	1061	2476	1238
H29010066BASS016	161 kV	66"	75.8 [1925]	66.8 [1697]	138 [3505]	619	568	1084	1120	2348	1174
H29010066AASS025	161 kV	66"	75.8 [1925]	66.8 [1697]	178.5 [4534]	619	568	1084	1120	2348	1174
H29010070BASS017	161-230 kV	70"	79.7 [2024]	70.8 [1798]	146.5 [3721]	654	598	1145	1178	2218	1109
H29010070AASS027	161-230 kV	70"	79.7 [2024]	70.8 [1798]	191.5 [4864]	654	598	1145	1178	2218	1109
H29010074CASS023	230 kV	74"	83.6 [2123]	74.8 [1900]	177.5 [4509]	688	628	1207	1237	2088	1044
H29010074AASS029	230 kV	74"	83.6 [2123]	74.8 [1900]	204.5 [5194]	688	628	1207	1237	2088	1044
H29010080CASS024	230 kV	80"	89.5 [2273]	80.8 [2052]	188 [4775]	739	671	1298	1323	1954	977
H29010080AASS031	230 kV	80"	89.5 [2273]	80.8 [2052]	219.5 [5575]	739	671	1298	1323	1954	977
H29010086CASS026	230 kV	86"	95.4 [2423]	86.8 [2205]	203 [5156]	789	713	1388	1409	1852	926
H29010086AASS033	230 kV	86"	95.4 [2423]	86.8 [2205]	234.5 [5956]	789	713	1388	1409	1852	926
H29010092BASS023	230 kV	92"	101.2 [2570]	92.8 [2357]	195.5 [4966]	839	754	1477	1494	1730	865
H29010092AASS036	230 kV	92"	101.2 [2570]	92.8 [2357]	254 [6452]	839	754	1477	1494	1730	865

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@macleanpower.com



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H25160015MXSS008	46 kV	15"	24.1 [612]	17.7 [450]	42.6 [1082]	183	163	309	392	5000	2500
H25160019MXSS010	46 kV	19"	28.1 [714]	21.7 [551]	53.2 [1351]	219	198	371	461	5000	2500
H25160023MXSS012	69 kV	23"	32.1 [815]	25.6 [650]	63.8 [1621]	254	232	432	527	5000	2500
H25160027MXSS014	69 kV	27"	36.1 [917]	29.5 [749]	74.4 [1890]	290	266	495	589	5000	2500
H25160031MXSS016	69-115 kV	31"	40.1 [1019]	33.4 [848]	85 [2159]	325	300	557	649	4681	2340
H25160035MXSS018	115 kV	35"	44.1 [1120]	37.3 [947]	95.6 [2428]	360	333	618	705	4199	2099
H25160039MXSS020	115 kV	39"	48.1 [1222]	41.2 [1046]	106.1 [2695]	395	366	680	759	3811	1905
H25160043MXSS022	115-138 kV	43"	52.1 [1323]	45.1 [1146]	116.1 [2949]	429	398	742	809	3508	1754
H25160047MXSS024	138 kV	47"	56.1 [1425]	49 [1245]	127.3 [3233]	464	429	804	857	3207	1604
H25160050MXSS026	138 kV	50"	59.1 [1501]	52.9 [1344]	137.9 [3503]	498	461	866	912	3061	1531

Application Notes:

- Specified tensile load (STL) = 5,000 lbs. [22.2kN]
- See conductor clamp section CDH for trunnion clamps
- See base and end fitting page for dimensions and options

H3	90	10	048	A	X	SS	018
CORE ROD	TOWER EF	LINE EF	RUBBER LENGTH	EXTRUDED SHED SPACING	CORONA RING	SHED PATTERN	SHED COUNT

H3 CORE ROD

H3 = 3.0"

90 TOWER EF

10 = Flat Base 17 Deg.
13 = Flat Base 0 Deg.
50 = 5" Bolt Circle
90 = Gain Base 17 Deg.
93 = Gain Base 0 Deg.
9C = Gain Base 12 Deg.

10 LINE EF

10 = Drop Tongue
20 = Horizontal Trunnion
50 = 5" Bolt Circle
60 = Vertical Trunnion
H0 = Horizontal RAM
F0 = Vertical RAM
E0 = High Strength Drop Tongue

048 RUBBER LENGTH

Linear Distance EF to EF

A EXTRUDED SHED SPACING

A = 2.5" Incremental Spacing
B = 2.0" Incremental Spacing
C = 1.6" Incremental Spacing

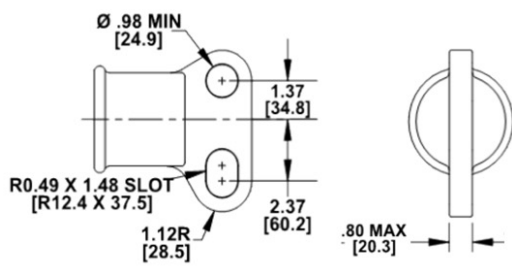
X CORONA RING

Tower	Line
X = None	X = None
A = None	A = 6"
B = None	B = 12"
C = None	C = 17"
E = 12"	E = 12"
H = 12"	H = 17"

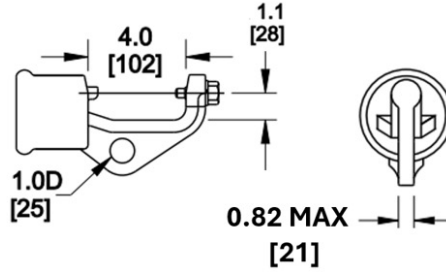
SS SHED PATTERN

SS = Standard
RS = Reverse Shed

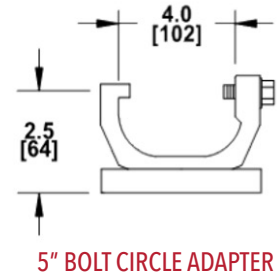
018 SHED COUNT



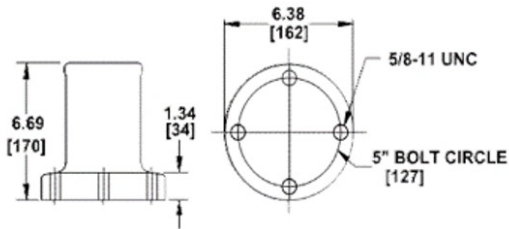
10 - DROP TONGUE



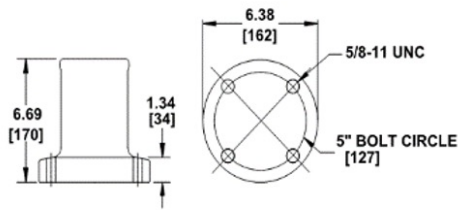
20 - HORIZONTAL TRUNNION



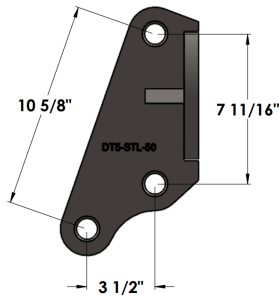
5" BOLT CIRCLE ADAPTER
60 - VERTICAL TRUNNION



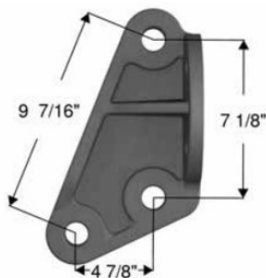
50 - 5" BOLT CIRCLE (LINE END)



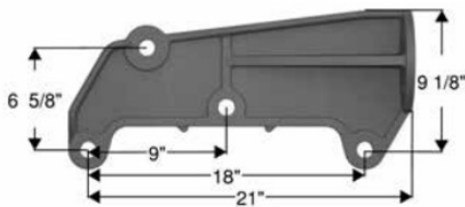
51 - 5" BOLT CIRCLE ROTATED 45° (LINE END)



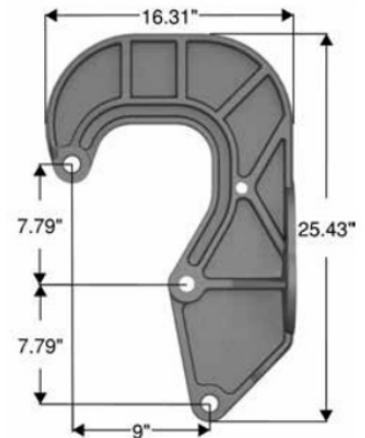
B3 S = HS DROP TONGUE



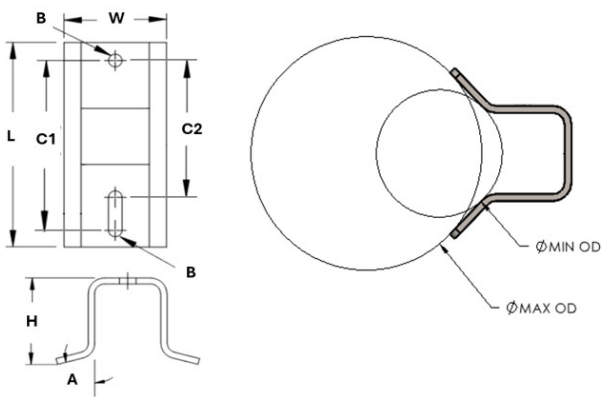
E0 - HIGH STRENGTH BRACKET



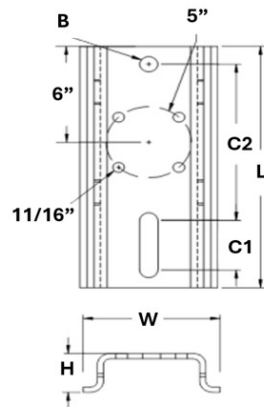
H0 - HORIZONTAL RAM



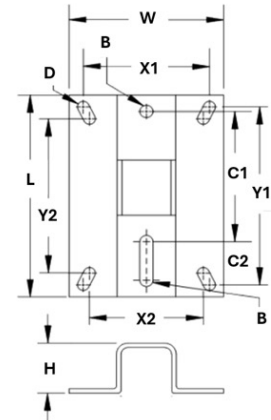
F0 - VERTICAL RAM



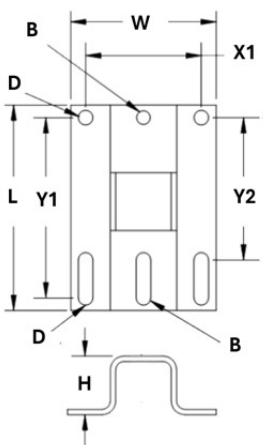
GAIN BASES



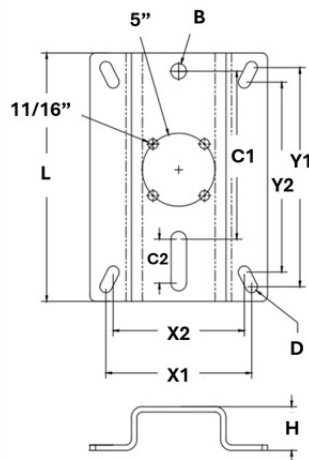
9L / HS GAIN BASE



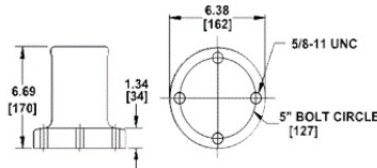
FLAT BASE: PATTERN #1



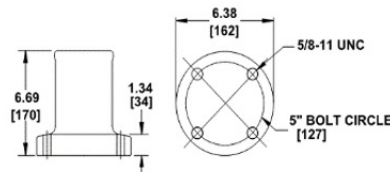
FLAT BASE: PATTERN #2



11 / HS FLAT BASE



50 = 5" BOLT CIRCLE



51 = 5" BOLT CIRCLE 45°

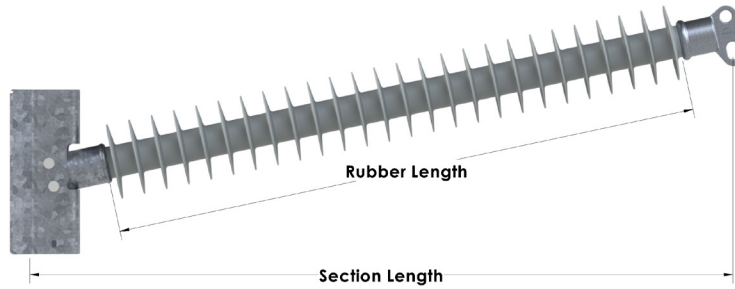
Base Materials:

- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized (tapped holes)

CATALOG DIGIT	BASE TYPE	UPSWEEP ANGLE - A	CENTER MOUNT			GAIN ANGLE - A	POLE DIAMETER		BASE OVERALL DIM.			FLAT MOUNT PATTERN				
			SPACING C1	SPACING C2	HOLE B		MIN	MAX	LENGTH L	WIDTH W	HEIGHT H	SPACING W X1	SPACING W X2	SPACING L Y1	SPACING L Y2	HOLE D
90	Gain	17°	15"	11"	1.06"	75°	10"	30"	17"	11.75"	6.1"	-	-	-	-	-
93	Gain	0°	15"	11"	1.06"	75°	10"	30"	17"	11.75"	6.1"	-	-	-	-	-
94	Gain	17°	15"	11"	1.06"	60°	10.5"	25"	17"	11.1"	6.7"	-	-	-	-	-
9L	HS Gain	0°	14"	12"	1.13"	-	8"	24"	17"	9.6"	2.8"	-	-	-	-	-
10	Flat #1	17°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	14"	13"	0.94"
12	Flat #2	17°	14"	12"	1.06"	-	-	-	17"	12.2"	5.4"	9"	-	14"	12"	0.94"
13	Flat #1	0°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	14"	13"	0.94"
11	HS Flat	0°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	15"	13"	0.81"
50	BC	0°	-	-	-	-	-	-	6.38"	6.38"	6.69"	4 Hole - 5" Ø (+)				
51	BC	0°	-	-	-	-	-	-	6.38"	6.38"	6.69"	4 Hole - 5" Ø (x)				

Base Materials:

- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized (tapped holes)



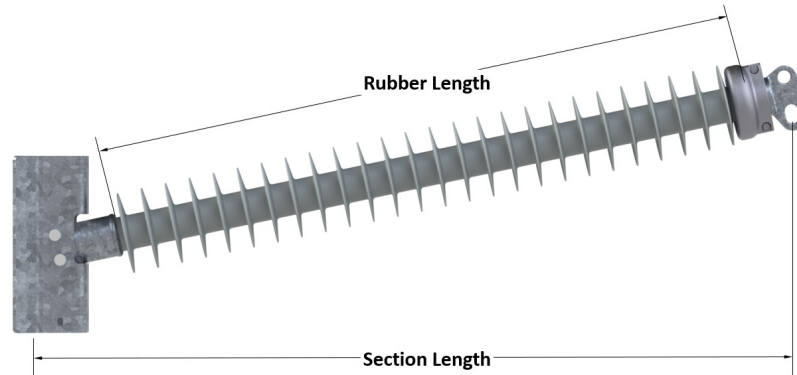
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H39010036AXSS007	115 kV	36"	49.9 [1267]	39 [991]	99.3 [2522]	375	347	646	729	6684	3342
H39010042CXSS013	115 kV	42"	55.6 [1412]	45 [1143]	105.3 [2675]	429	397	741	808	5736	2868
H39010042AXSS016	115 kV	42"	55.6 [1412]	45 [1143]	119.9 [3045]	429	397	741	808	5736	2868
H39010048CXSS010	115-138 kV	48"	61.3 [1557]	51 [1295]	96.7 [2456]	482	446	836	884	5252	2626
H39010048AXSS018	115-138 kV	48"	61.3 [1557]	51 [1295]	135.6 [3444]	482	446	836	884	5252	2626
H39010052BXSS013	138 kV	52"	65.2 [1656]	55 [1397]	115.3 [2929]	517	477	899	944	4866	2433
H39010052AXSS020	138 kV	52"	65.2 [1656]	55 [1397]	149.3 [3792]	517	477	899	944	4866	2433
H39010060BXSS015	161 kV	60"	72.8 [1849]	63 [1600]	133 [3378]	586	539	1024	1064	4240	2120
H39010060AXSS023	161 kV	60"	72.8 [1849]	63 [1600]	171.9 [4366]	586	539	1024	1064	4240	2120

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized

Application Notes:

- Specified tensile load (STL) = 20,000 lbs. [89kN]
- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@macleanpower.com



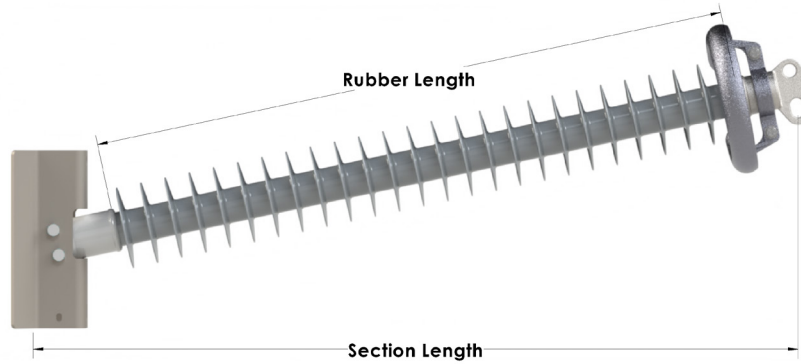
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H39010050CASS010	115 kV	50"	62.4 [1585]	51.7 [1313]	98.7 [2507]	488	451	847	895	5058	2529
H39010050CASS015	115 kV	50"	62.4 [1585]	51.7 [1313]	123 [3124]	488	451	847	895	5058	2529
H39010056BASS014	115 kV	56"	68.2 [1732]	57.7 [1466]	124.1 [3152]	540	499	942	985	4478	2239
H39010056AASS021	138 kV	56"	68.2 [1732]	57.7 [1466]	158.2 [4018]	540	499	942	985	4478	2239
H39010062BASS015	138 kV	62"	73.9 [1877]	63.7 [1618]	135 [3429]	592	545	1035	1074	4122	2061
H39010062AASS024	138-161 kV	62"	73.9 [1877]	63.7 [1618]	178.8 [4542]	592	545	1035	1074	4122	2061
H39010070CASS021	138-161 kV	70"	82.4 [2093]	71.7 [1821]	172.2 [4374]	661	605	1159	1191	3704	1852
H39010070BASS034	161 kV	70"	82.4 [2093]	71.7 [1821]	235.5 [5982]	661	605	1159	1191	3704	1852
H39010074CASS023	161 kV	74"	86.2 [2189]	75.7 [1923]	185.9 [4722]	695	634	1220	1250	3490	1745
H39010074BASS036	230 kV	74"	86.2 [2189]	75.7 [1923]	249.2 [6330]	695	634	1220	1250	3490	1745
H39010080CASS024	230 kV	80"	91.9 [2334]	81.7 [2075]	196.8 [4999]	746	677	1311	1336	3270	1635
H39010080AASS031	230 kV	80"	91.9 [2334]	81.7 [2075]	230.9 [5865]	746	677	1311	1336	3270	1635
H39010084CASS026	230 kV	84"	94.9 [2410]	85.7 [2177]	210.5 [5347]	780	705	1372	1394	3122	1561
H39010084AASS033	230 kV	84"	94.9 [2410]	85.7 [2177]	244.6 [6213]	780	705	1372	1394	3122	1561
H39010090BASS022	230 kV	90"	100.7 [2558]	91.7 [2329]	197.1 [5006]	830	746	1461	1479	2902	1451
H39010090AASS035	230 kV	90"	100.7 [2558]	91.7 [2329]	260.3 [6612]	830	746	1461	1479	2902	1451

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@maclean-power.com



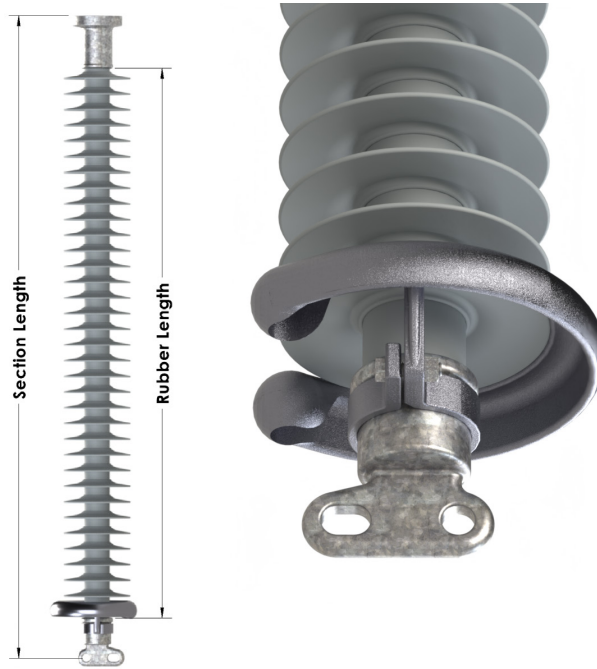
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H31010116CBSS036	345 kV	116"	125.5 [3188]	116.4 [2957]	291.2 [7396]	1033	878	1813	1821	2292	1146
H31010116BBSS057	345 kV	116"	125.5 [3188]	116.4 [2957]	393.4 [9992]	1033	878	1813	1821	2292	1146
H31010128CBSS039	345 kV	128"	137 [3480]	128.4 [3261]	317.8 [8072]	1128	934	1976	1982	2110	1055
H31010128ABSS050	345 kV	128"	137 [3480]	128.4 [3261]	371.4 [9434]	1128	934	1976	1982	2110	1055
H31010140BBSS035	345 kV	140"	148.5 [3772]	140.4 [3566]	310.3 [7882]	1223	990	2134	2140	1940	970
H31010140ABSS055	345 kV	140"	148.5 [3772]	140.4 [3566]	407.7 [10356]	1223	990	2134	2140	1940	970
H31010164CHSS051	500 kV	164"	171.4 [4354]	162.4 [4125]	412.2 [10470]	1390	1092	210	2420	1742	871
H31010164AHSS065	500 kV	164"	171.4 [4354]	162.4 [4125]	480 [12192]	1390	1092	210	2420	1742	871
H31010176CHSS054	500 kV	176"	182.9 [4646]	174.4 [4430]	438.8 [11146]	1480	1148	2558	2568	1634	817
H31010176AHSS069	500 kV	176"	182.9 [4646]	174.4 [4430]	511.8 [13000]	1480	1148	2558	2568	1634	817
H31010182CHSS056	500 kV	182"	188.6 [4790]	180.4 [4582]	454.6 [11547]	1524	1176	2631	2641	1590	795
H31010182AHSS072	500 kV	182"	188.6 [4790]	180.4 [4582]	532.4 [13523]	1524	1176	2631	2541	1590	795

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@macleanpower.com



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H35110084CARS026	230 kV	84"	96.5 [2451]	85.7 [2177]	210.5 [5347]	780	705	1372	1394	3180	1590
H35110084AARS033	230 kV	84"	96.5 [2451]	85.7 [2177]	244.6 [6213]	780	705	1372	1394	3180	1590
H35110090BARS022	230 kV	90"	102.5 [2604]	91.7 [2329]	197.1 [5006]	830	746	1461	1479	2968	1484
H35110090AARS035	230 kV	90"	102.5 [2604]	91.7 [2329]	260.3 [6612]	830	746	1461	1479	2968	1484
H35110116CBRS036	345 kV	116"	128.5 [3264]	116.4 [2957]	291.2 [7396]	1033	878	1813	1821	2356	1178
H35110116BBRS057	345 kV	116"	128.5 [3264]	116.4 [2957]	393.4 [9992]	1033	878	1813	1821	2356	1178
H35110128CBRS039	345 kV	128"	140.5 [3569]	128.4 [3261]	317.8 [8072]	1128	934	1976	1982	2186	1093
H35110128ABRS050	345 kV	128"	140.5 [3569]	128.4 [3261]	371.4 [9434]	1128	934	1976	1982	2186	1093
H35110140BBRS035	345 kV	140"	152.5 [3874]	140.4 [3566]	310.3 [7882]	1223	990	2134	2140	2016	1008
H35110140ABRS055	345 kV	140"	152.5 [3874]	140.4 [3566]	407.7 [10356]	1223	990	2134	2140	2016	1008
H35110164CHRS051	500 kV	164"	176.5 [4483]	162.4 [4125]	412.2 [10470]	1390	1092	210	2420	1742	871
H35110164AHR065	500 kV	164"	176.5 [4483]	162.4 [4125]	480.4 [12202]	1390	1092	210	2420	1742	871
H35110176CHRS051	500 kV	176"	188.5 [4788]	174.4 [4430]	438.8 [11146]	1480	1148	2558	2568	1634	817
H35110176AHR069	500 kV	176"	188.5 [4788]	174.4 [4430]	511.8 [13000]	1480	1148	2558	2568	1634	817
H35110182CHRS056	500 kV	182"	194.5 [4940]	180.4 [4582]	454.6 [11547]	1524	1176	2631	2641	1590	795
H35110182AHR072	500 kV	182"	194.5 [4940]	180.4 [4582]	532.4 [13523]	1524	1176	2631	2641	1590	795

H4	90	10	058	A	X	SS	022
CORE ROD	TOWER EF	LINE EF	RUBBER LENGTH	EXTRUDED SHED SPACING	CORONA RING	SHED PATTERN	SHED COUNT

H4 CORE ROD

H4 = 3.5"

90 TOWER EF

10 = Flat Base 15 Deg.

12 = Flat Base 0 Deg.

70 = 7" Bolt Circle

90 = Gain Base 17 Deg.

91 = Gain Base 0 Deg.

10 LINE EF

10 = Drop Tongue

20 = Horizontal Trunnion

E0 = High Strength Drop Tongue

F0 = Vertical RAM Bracket

H0 = Horizontal RAM Bracket

058 RUBBER LENGTH

Linear Distance EF to EF

A EXTRUDED SHED SPACING

A = 2.5" Incremental Spacing

B = 2.0" Incremental Spacing

C = 1.6" Incremental Spacing

X CORONA RING

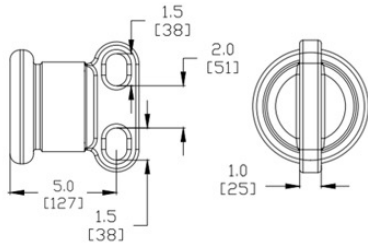
Tower	Line
X = None	X = None
B = None	B = 12"
C = None	C = 17"
E = 12"	E = 12"
H = 12"	H = 17"

SS SHED PATTERN

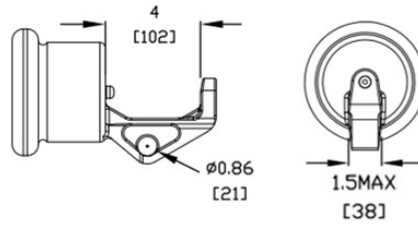
SS = Standard

RS = Reverse Shed

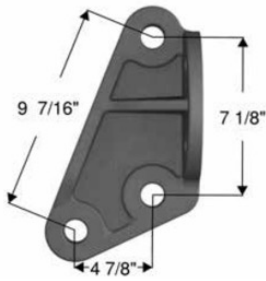
022 SHED COUNT



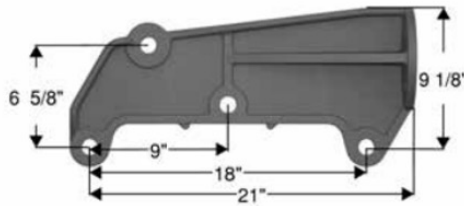
10 - DROP TONGUE



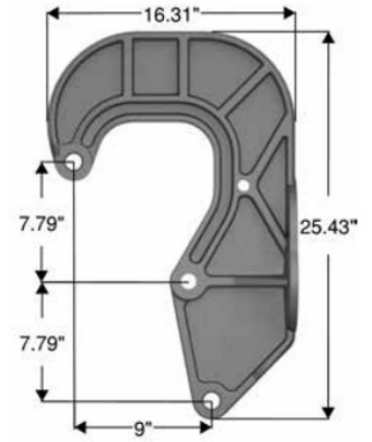
20 - HORIZONTAL TRUNNION



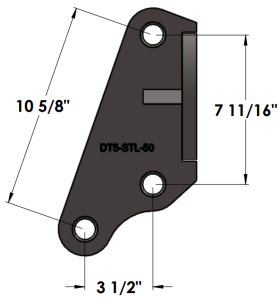
E0 - HIGH STRENGTH BRACKET



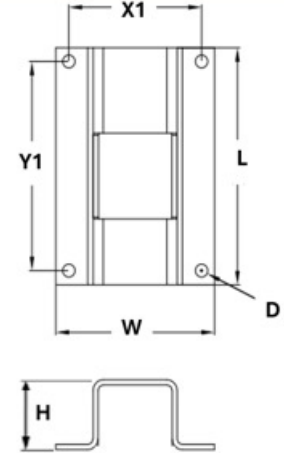
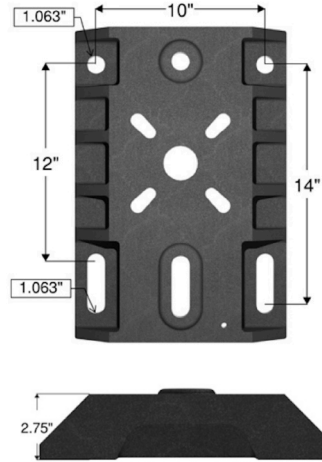
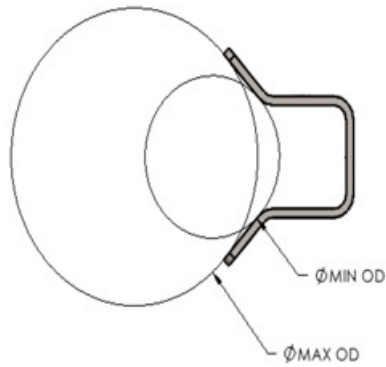
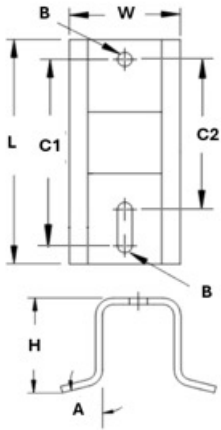
H0 - HORIZONTAL RAM



FO - VERTICAL RAM



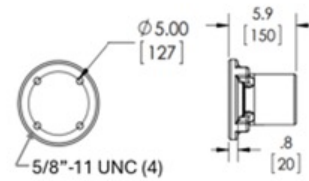
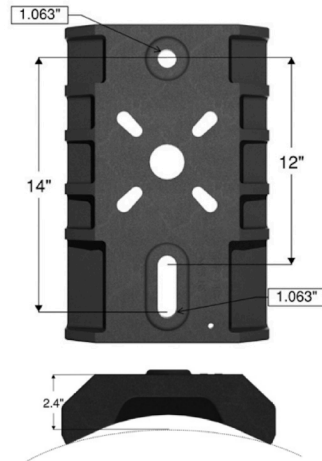
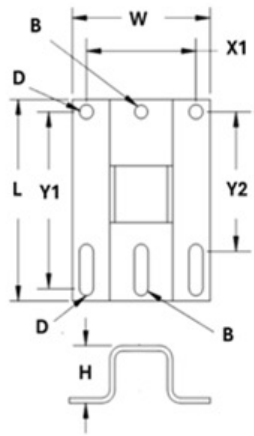
B3 ES = HS DROP TONGUE



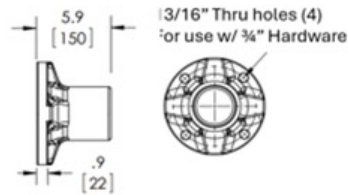
GAIN BASES

17 HIGH STRENGTH FLAT BASE

FLAT BASE: PATTERN #1



50 = 5" BOLT CIRCLE



FLAT BASE: PATTERN #2

97 HIGH STRENGTH GAIN BASE

70 = 7" BOLT CIRCLE ROTATED 45 DEG.

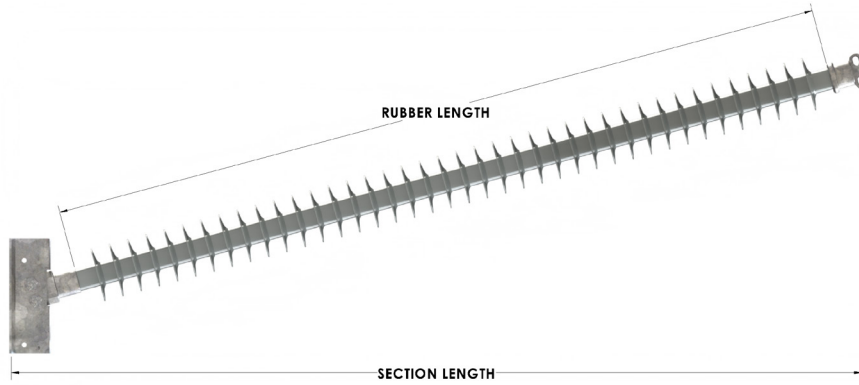
Base Materials:

- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized (tapped holes)

CATALOG DIGIT	BASE TYPE	UPSWEEP ANGLE - A	CENTER MOUNT				POLE DIAMETER		BASE OVERALL DIM.			FLAT MOUNT PATTERN				
			SPACING C1	SPACING C2	HOLE B	GAIN ANGLE - A	MIN	MAX	LENGTH L	WIDTH W	HEIGHT H	SPACING W X1	SPACING W X2	SPACING L Y1	SPACING L Y2	HOLE D
90	Gain	15°	14"	12"	1.06"	70°	16"	35"	18"	9.9"	5.5"	-	-	-	-	-
91	Gain	0°	14"	12"	1.06"	70°	16"	35"	18"	9.9"	5.7"	-	-	-	-	-
9D	Gain	15°	14"	12"	1.38"	70°	16"	35"	18"	9.9"	5.5"	-	-	-	-	-
9H	Gain	15°	14"	12"	1.06"	75°	16"	35"	18"	9.9"	5.5"	-	-	-	-	-
10	Flat #1	15°	-	-	-	-	-	-	17"	12"	5.5"	10"	-	15"	11"	0.94"
11	Flat #2	15°	14"	12"	0.81"	-	-	-	17"	12"	5.5"	10"	-	15"	11"	0.94"
12	Flat #2	0°	15"	12"	1.38"	-	-	-	18"	12"	5.5"	10"	-	15"	12"	0.94"
14	Flat #2	0°	15"	12"	0.94"	-	-	-	18"	12"	5.5"	10"	9"	15"	12"	0.94"
1L	HS Flat	0°	15"	12"	0.94"	-	-	-	17"	12.3"	2.8	10"	9"	15"	13"	0.94"
50	BC	0°	-	-	-	-	-	-	6.69"	6.69"	5.9"	4 Hole - 5" Ø (x)				
70	BC	0°	-	-	-	-	-	-	8.5"	8.5"	5.9"	4 Hole - 7" Ø (x)				

Base Materials:

- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized (tapped holes)



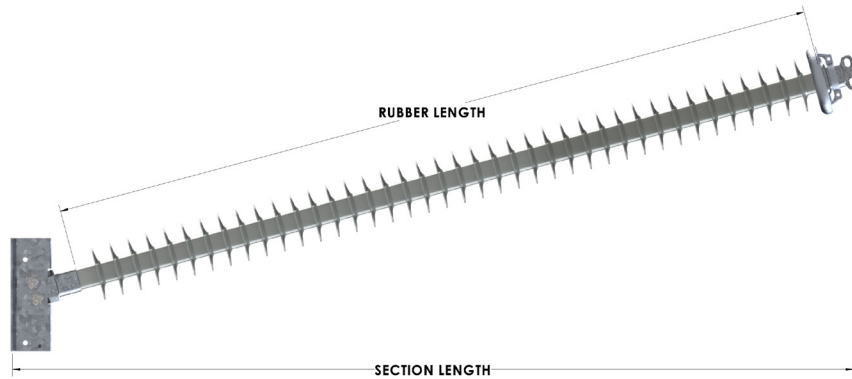
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H49010046BXSS011	115 kV	46"	59.8 [1519]	48.5 [1232]	100.9 [2563]	460	425	796	851	7087	3543
H49010046AXSS017	115 kV	46"	59.8 [1519]	48.5 [1232]	130.9 [3325]	460	425	796	851	7087	3543
H49010052BXSS013	115-138 kV	52"	65.6 [1666]	54.5 [1384]	116.9 [2969]	512	473	891	937	6335	3167
H49010052AXSS020	115-138 kV	52"	65.6 [1666]	54.5 [1384]	151.9 [3858]	512	473	891	937	6335	3167
H49010058BXSS014	138 kV	58"	71.4 [1814]	60.5 [1537]	127.9 [3249]	565	520	985	1026	5732	2866
H49010058AXSS022	138 kV	58"	71.4 [1814]	60.5 [1537]	167.9 [4264]	565	520	985	1026	5732	2866
H49010064BXSS016	138-161 kV	64"	77.2 [1961]	66.5 [1689]	143.9 [3655]	617	566	1079	1115	5238	2619
H49010064AXSS025	138-161 kV	64"	77.2 [1961]	66.5 [1689]	188.9 [4797]	617	566	1079	1115	5238	2619
H49010070BXSS017	161 kV	70"	83.0 [2108]	72.5 [1842]	154.9 [3934]	668	611	1171	1203	4826	2413
H49010070AXSS027	161 kV	70"	83.0 [2108]	72.5 [1842]	204.8 [5203]	668	611	1171	1203	4826	2413
H49010076BXSS013	161 kV	76"	88.8 [2256]	78.5 [1994]	140.9 [3579]	719	654	1263	1209	4476	2238
H49010076AXSS029	161 kV	76"	88.8 [2256]	78.5 [1994]	220.8 [5609]	719	654	1263	1209	4476	2238

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@macleanpower.com



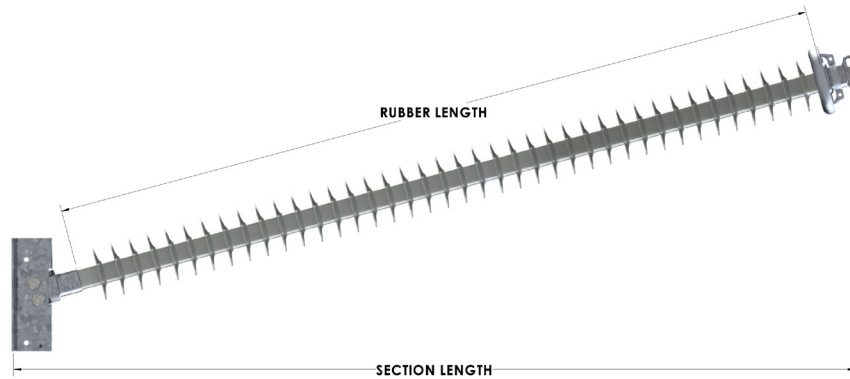
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H49010064BBS016	138-161 kV	64"	77.2 [1961]	64.0 [1626]	143.9 [3655]	595	547	1040	1078	5238	2619
H49010064ABS025	138-161 kV	64"	77.2 [1961]	64.0 [1626]	188.9 [4797]	595	547	1040	1078	5238	2619
H49010070BBS017	161 kV	70"	83.0 [2108]	70.0 [1778]	154.9 [3934]	647	592	1133	1167	4826	2413
H49010070ABS027	161 kV	70"	83.0 [2108]	70.0 [1778]	204.8 [5203]	647	592	1133	1167	4826	2413
H49010076BBS013	161-230 kV	76"	88.8 [2256]	76.0 [1930]	140.9 [3579]	698	636	1225	1254	4476	2238
H49010076ABS029	161-230 kV	76"	88.8 [2256]	76.0 [1930]	220.8 [5609]	698	636	1225	1254	4476	2238
H49010082CBS025	230 kV	82"	94.6 [2403]	82 [2083]	206.9 [5255]	749	679	1316	1341	4176	2088
H49010082ABS032	230 kV	82"	94.6 [2403]	82 [2083]	241.8 [6142]	749	679	1316	1341	4176	2088
H49010088BBS027	230 kV	88"	100.4 [2550]	88 [2235]	197.9 [5027]	799	721	1406	1426	3914	1957
H49010088ABS034	230 kV	88"	100.4 [2550]	88 [2235]	257.8 [6548]	799	721	1406	1426	3914	1957
H49010094BBS028	230 kV	94"	106.2 [2697]	94 [2388]	208.9 [5306]	849	762	1494	1511	1511	1843
H49010094ABS037	230 kV	94"	106.2 [2697]	94 [2388]	278.8 [7081]	849	762	1494	1511	1511	1843

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- For other end fitting and base options - contact transmission@macleanpower.com



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOAD (Lbs)	
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL	MDCL
H41010116CBSS036	345 kV	116"	126.2 [3205]	116 [2946]	295.8 [7513]	1029	876	1807	1816	3040	1520
H41010116BBS057	345 kV	116"	126.2 [3205]	116 [2946]	400.7 [10178]	1029	876	1807	1816	3040	1520
H41010128CBSS039	345 kV	128"	137.8 [3500]	128 [3251]	322.8 [8199]	1125	932	1970	1977	2778	1389
H41010128ABSS050	345 kV	128"	137.8 [3500]	128 [3251]	377.7 [9594]	1125	932	1970	1977	2778	1389
H41010140BBS035	345 kV	140"	149.4 [3795]	140 [3556]	314.8 [7996]	1219	988	2128	2135	2559	1280
H41010140ABSS055	345 kV	140"	149.4 [3795]	140 [3556]	414.7 [10533]	1219	988	2128	2135	2559	1280
H41010162CHSS050	500 kV	162"	170.6 [4333]	156.9 [3985]	411.7 [10458]	1349	1067	2343	2352	2239	1120
H41010162BHSS080	500 kV	162"	170.6 [4333]	156.9 [3985]	481.6 [11234]	1349	1067	2343	2352	2239	1120
H41010174CHSS054	500 kV	174"	182.2 [4628]	168.9 [4290]	443.7 [11270]	1440	1123	2491	2502	2098	1049
H41010174AHSS069	500 kV	174"	182.2 [4628]	168.9 [4290]	518.6 [13173]	1440	1123	2491	2502	2098	1049
H41010180BHSS045	500 kV	180"	188 [4775]	174.9 [4442]	404.7 [10281]	1484	1151	2565	2576	2034	1017
H41010180AHSS071	500 kV	180"	188 [4775]	174.9 [4442]	534.6 [13579]	1484	1151	2565	2576	2034	1017

End Fitting Materials:

- Gain base - steel, galvanized
- Anchor - ductile iron, galvanized
- Drop tongue - ductile iron, galvanized
- Corona ring - aluminum

Application Notes:

- Load curve information available in PLS library, on the MPS website
- See base & end fitting page for dimensions and alternate design options
- 345kV includes 12" CR on line end, 500kV includes 17" CR on line end and 12" CR on tower end
- For other end fitting and base options - contact transmission@macleanpower.com

TRANSMISSION INSULATORS POLYMER SUSPENSION



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP



SUSPENSION CORONA RINGS

MPS Smart Fit Corona Rings come in three standard sizes: 8", 12", and 17". They are designed for use on both our extruded and molded insulators. Below is a table showing the MPS general guide for corona ring sizing.

SUSPENSION CORONA RING GUIDE

VOLTAGE	115kV	138kV	161kV	230kV	345kV	345kV	500kV	765kV
Designation Within Insulator Catalog Number	X	X	X	A	B	G	V	H
Line End	-	-	-	8"	12"	12"	17"	17"
Tower End	-	-	-	-	-	8"	8"	12"

Notes

- Corona rings are available for 115kV - 161kV if required by customer
- Adding a corona ring will reduce the dry arc distance roughly 1.5 - 3.0"
- The corona ring is represented in the insulator catalog number in the 11th digit
 - Example:
 - 25 kip molded suspension y clevis / ball insulator with no corona ring
 - S14080050MXSS025
 - 25 kip molded suspension y clevis / ball insulator with 8" corona ring
 - S14080050MASS025

Features

- Unidirectional fit
- Connected to corona ball
- 2 piece captive keeper system
- Easy installation
- Hot stick workable

S1	40	80	048	M	X	SS	024
SML	TOWER EF	LINE EF	RUBBER LENGTH	MOLDED/EXTRUDED	CORONA RING	SHED PATTERN	SHED COUNT

S1 SML

- S1 = 25k
- S5 = 30k
- S6 = 36k
- S2 = 50k
- S4* = 80k
- S3* = 120k

40 TOWER EF

- 40 = Y-Clevis
- 50 = Tongue
- 60 = Clevis
- 70 = Socket
- 80 = Ball
- 90 = Eye

80 LINE EF

- 40 = Y-Clevis
- 50 = Tongue
- 60 = Clevis
- 70 = Socket
- 80 = Ball
- 90 = Eye

048 RUBBER LENGTH

Linear Distance EF to EF

M MOLDED/EXTRUDED SHED SPACING

- M** = Standard
- V = Variable

X CORONA RING

Tower	Line
X = None	X = None
A = None	A = 8"
B = None	B = 12"
C = None	C = 17"
D = 8"	D = 8"
E = 12"	E = 12"
F = 17"	F = 17"
G = 8"	G = 12"
H = 12"	H = 17"
V = 8"	V = 17"

SS SHED PATTERN

- SS = Standard
- AL = Standard Alt.
- RS = Reverse Shed

024 SHED COUNT

Notes:

- *End fitting options limited by strength class
- **Standard shed spacing only available for S1 and S5
- ANSI and IEC options available for insulator fittings





DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 40 80	+0"	25k Lbs.	Y-Clevis	52-5 Ball
S5 40 80	+0"	30k Lbs.	Y-Clevis	52-5 Ball
S2 40 80	+0"	50k Lbs.	Y-Clevis	52-11 Ball



DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 90 80	+0.2"	25k Lbs.	Oval Eye	52-5 Ball
S5 90 80	+0.2"	30k Lbs.	Oval Eye	52-5 Ball
S2 90 80	+0.9"	50k Lbs.	Oval Eye	52-11 Ball



DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 70 80	-1.0"	25k Lbs.	52-5 Socket	52-5 Ball
S5 70 80	-1.0"	30k Lbs.	52-5 Socket	52-5 Ball
S2 70 80	-0.2"	50k Lbs.	52-11 Socket	52-11 Ball

CONTINUE TO NEXT PAGE...



DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 90 90	+1.6"	25k Lbs.	Oval Eye	Oval Eye
S5 90 90	+1.6"	30k Lbs.	Oval Eye	Oval Eye
S2 90 90	+2.5"	50k Lbs.	Oval Eye	Oval Eye

Application Notes:

- S_ 90 91 [90° rotated EF]



DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 40 90	+1.5"	25k Lbs.	Y-Clevis	Oval Eye
S5 40 90	+1.5"	30k Lbs.	Y-Clevis	Oval Eye
S2 40 90	+1.5"	50k Lbs.	Y-Clevis	Oval Eye

Application Notes:

- S_ 40 91 [90° rotated EF]



DESIGNATION	SECTION LENGTH CHANGE FROM Y/BALL	STRENGTH	TOWER FITTING	LINE FITTING
S1 40 40	+1.3"	25k Lbs.	Y-Clevis	Y-Clevis
S5 40 40	+1.3"	30k Lbs.	Y-Clevis	Y-Clevis
S2 40 40	+0.6"	50k Lbs.	Y-Clevis	Y-Clevis

Application Notes:

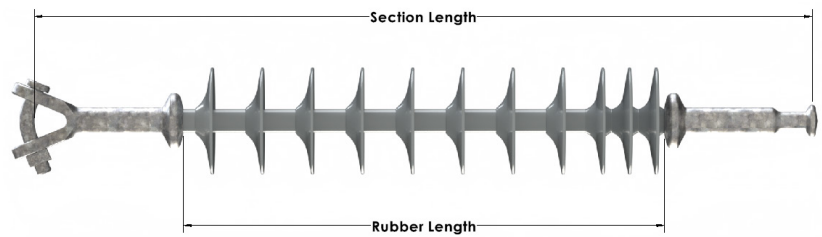
- S_ 40 41 [90° rotated EF]

TRANSMISSION INSULATORS POLYMER SUSPENSION HV [69kV-161kV]

25k SML [16mm]
S1 Series

TENSILE STRENGTH RATING

	SML	RTL
S1	25 klb	12.5 klb
S1	111.2 kN	55.6 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S14080024MXSS012	69 kV	24"	35.9 [912]	26.7 [678]	75.3 [1913]	268	242	467	501
S14080026MXSS013	69 kV	26"	37.9 [963]	28.7 [729]	81.6 [2073]	288	260	500	535
S14080028MXSS014	69 kV	28"	39.9 [1013]	30.7 [780]	87.8 [2230]	307	277	532	570
S14080030MXSS015	69 kV	30"	41.9 [1064]	32.7 [831]	94 [2388]	326	294	565	604
S14080032MXSS016	69-115 kV	32"	43.9 [1115]	34.7 [881]	100.3 [2548]	345	311	597	637
S14080034MXSS017	115 kV	34"	45.9 [1166]	36.7 [932]	106.5 [2705]	364	328	629	670
S14080036MXSS018	115 kV	36"	47.9 [1217]	38.7 [983]	112.7 [2863]	383	345	661	703
S14080038MXSS019	115 kV	38"	49.9 [1267]	40.7 [1034]	119 [3023]	402	362	693	737
S14080040MXSS020	115-138 kV	40"	51.9 [1318]	42.7 [1085]	125.2 [3180]	421	378	725	770
S14080042MXSS021	115-138 kV	42"	53.9 [1369]	44.7 [1135]	131.5 [3340]	440	394	755	802
S14080044MXSS022	138 kV	44"	55.9 [1420]	46.7 [1186]	137.7 [3498]	459	411	787	834
S14080046MXSS023	138 kV	46"	57.9 [1471]	48.7 [1237]	143.9 [3655]	478	427	818	866
S14080048MXSS024	138 kV	48"	59.9 [1521]	50.7 [1288]	150.2 [3815]	497	443	849	899
S14080050MXSS025	138 kV	50"	61.9 [1572]	52.7 [1339]	156.4 [3973]	516	459	880	931
S14080052MXSS026	138-161 kV	52"	63.9 [1623]	54.7 [1389]	162.7 [4133]	535	475	911	962
S14080054VXSS021	161 kV	54"	65.2 [1656]	57.2 [1453]	133.8 [3399]	559	495	949	1001
S14080054VXSS027	161 kV	54"	65.2 [1656]	57.2 [1453]	157.1 [3990]	559	495	949	1001

Application Notes:

- M_ = injection molded design
- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

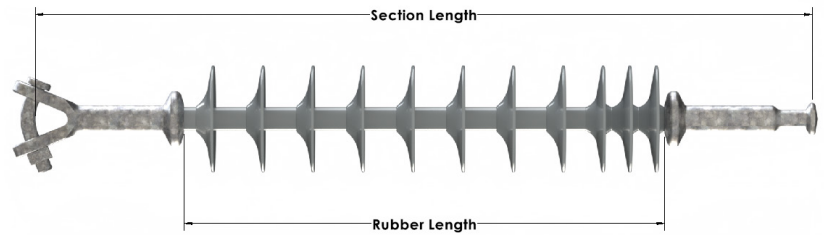


TRANSMISSION INSULATORS POLYMER SUSPENSION HV [69kV-161kV]

30k SML [16mm]
S5 Series

TENSILE STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S54080024MXSS012	69 kV	24"	35.9 [912]	26.7 [678]	75.3 [1913]	268	242	467	501
S54080026MXSS013	69 kV	26"	37.9 [963]	28.7 [729]	81.6 [2073]	288	260	500	535
S54080028MXSS014	69 kV	28"	39.9 [1013]	30.7 [780]	87.8 [2230]	307	277	532	570
S54080030MXSS015	69 kV	30"	41.9 [1064]	32.7 [831]	94 [2388]	326	294	565	604
S54080032MXSS016	69-115 kV	32"	43.9 [1115]	34.7 [881]	100.3 [2548]	345	311	597	637
S54080034MXSS017	115 kV	34"	45.9 [1166]	36.7 [932]	106.5 [2705]	364	328	629	670
S54080036MXSS018	115 kV	36"	47.9 [1217]	38.7 [983]	112.7 [2863]	383	345	661	703
S54080038MXSS019	115 kV	38"	49.9 [1267]	40.7 [1034]	119 [3023]	402	362	693	737
S54080040MXSS020	115-138 kV	40"	51.9 [1318]	42.7 [1085]	125.2 [3180]	421	378	725	770
S54080042MXSS021	115-138 kV	42"	53.9 [1369]	44.7 [1135]	131.5 [3340]	440	394	755	802
S54080044MXSS022	138 kV	44"	55.9 [1420]	46.7 [1186]	137.7 [3498]	459	411	787	834
S54080046MXSS023	138 kV	46"	57.9 [1471]	48.7 [1237]	143.9 [3655]	478	427	818	866
S54080048MXSS024	138 kV	48"	59.9 [1521]	50.7 [1288]	150.2 [3815]	497	443	849	899
S54080050MXSS025	138 kV	50"	61.9 [1572]	52.7 [1339]	156.4 [3973]	516	459	880	931
S54080052MXSS026	138-161 kV	52"	63.9 [1623]	54.7 [1389]	162.7 [4133]	535	475	911	962
S54080054VXSS021	161 kV	54"	65.2 [1656]	57.2 [1453]	133.8 [3399]	559	495	949	1001
S54080054VXSS027	161 kV	54"	65.2 [1656]	57.2 [1453]	157.1 [3990]	559	495	949	1001

Application Notes:

- M_ = injection molded design
- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

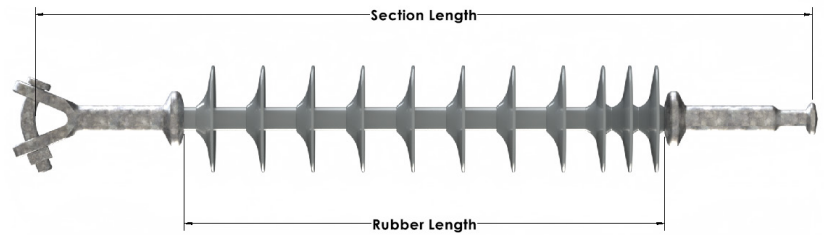


TRANSMISSION INSULATORS POLYMER SUSPENSION HV [69kV-161kV]

50k SML [24mm]
S2 Series

TENSILE STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	222 kN	111 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S24080024VXSS006	69 kV	24"	38.6 [980]	27.4 [686]	46 [1168]	275	248	478	513
S24080024VXSS011	69 kV	24"	38.6 [980]	27.4 [686]	65.4 [1661]	275	248	478	513
S24080030VXSS013	69 kV	30"	44.6 [1133]	33.4 [848]	79.2 [2012]	332	300	576	615
S24080030VXSS018	69 kV	30"	44.6 [1133]	33.4 [848]	98.6 [2504]	332	300	576	615
S24080036VXSS010	115 kV	36"	50.6 [1285]	39.4 [1001]	73.5 [1867]	389	351	672	715
S24080036VXSS018	115 kV	36"	50.6 [1285]	39.4 [1001]	104.6 [2657]	389	351	672	715
S24080042VXSS018	115 kV	42"	56.6 [1438]	45.4 [1153]	110.6 [2809]	447	400	767	813
S24080042VXSS025	115 kV	42"	56.6 [1438]	45.4 [1153]	137.7 [3498]	447	400	767	813
S24080048VXSS013	115-138 kV	48"	62.6 [1590]	51.4 [1306]	97.2 [2469]	504	449	860	910
S24080048VXSS024	115-138 kV	48"	62.6 [1590]	51.4 [1306]	139.9 [3553]	504	449	860	910
S24080054VXSS017	138 kV	54"	68.6 [1742]	57.4 [1458]	118.7 [3015]	561	496	952	1005
S24080054VXSS023	138 kV	54"	68.6 [1742]	57.4 [1458]	142 [3607]	561	496	952	1005
S24080060VXSS016	138-161 kV	60"	74.6 [1895]	63.4 [1610]	120.8 [3068]	618	542	1044	1098
S24080060VXSS025	138-161 kV	60"	74.6 [1895]	63.4 [1610]	155.7 [3955]	618	542	1044	1098
S24080066VXSS018	161 kV	66"	80.6 [2047]	69.4 [1763]	134.6 [3419]	675	588	1134	1191
S24080066VXSS027	161 kV	66"	80.6 [2047]	69.4 [1763]	169.5 [4305]	675	588	1134	1191

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

TRANSMISSION INSULATORS POLYMER SUSPENSION HV [115kV-161kV]

80k SML [32mm]
S4 Series

TENSILE STRENGTH RATING

	SML	RTL
S4	80 klb	40 klb
S4	356 kN	178 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S49090042VXSS014	115 kV	42"	63.1 [1603]	45.6 [1158]	95.1 [2416]	449	402	770	816
S49090042VXSS021	115 kV	42"	63.1 [1603]	45.6 [1158]	122.2 [3104]	449	402	770	816
S49090048VXSS013	115 kV	48"	69.1 [1755]	51.6 [1311]	97.2 [2469]	506	450	863	913
S49090048VXSS019	115 kV	48"	69.1 [1755]	51.6 [1311]	120.5 [3061]	506	450	863	913
S49090054VXSS017	138 kV	54"	75.1 [1908]	57.6 [1463]	118.7 [3015]	563	498	955	1008
S49090054VXSS023	138 kV	54"	75.1 [1908]	57.6 [1463]	142 [3607]	563	498	955	1008
S49090060VXSS019	161 kV	60"	81.1 [2060]	63.6 [1615]	132.5 [3366]	620	544	1047	1101
S49090060VXSS028	161 kV	60"	81.1 [2060]	63.6 [1615]	167.4 [4252]	620	544	1047	1101
S49090066VXSS018	161 kV	66"	87.1 [2212]	69.8 [1773]	134.6 [3419]	677	589	1137	1194
S49090066VXSS027	161 kV	66"	87.1 [2212]	69.8 [1773]	169.5 [4305]	677	589	1137	1194

Application Notes:

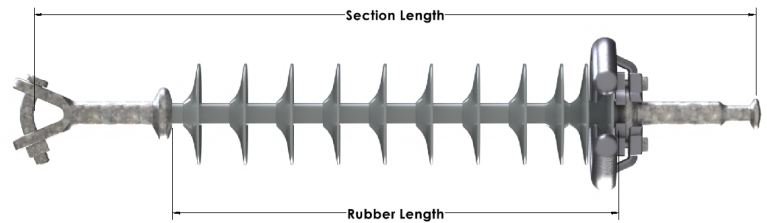
- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For custom designs, contact transmission@macleanpower.com

TRANSMISSION INSULATORS POLYMER SUSPENSION HV [115kV-230kV]

25k SML [16mm]
S1 Series

TENSILE STRENGTH RATING

	SML	RTL
S1	25 klb	12.5 klb
S1	111.2 kN	55.6 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S14080040MASS020	115-138 kV	40"	51.9 [1318]	40.1 [1019]	125.2 [3180]	396	357	683	727
S14080042MASS021	115-138 kV	42"	53.9 [1369]	42.1 [1069]	131.5 [3340]	415	373	715	759
S14080044MASS022	138 kV	44"	55.9 [1420]	44.1 [1120]	137.7 [3498]	434	390	746	792
S14080046MASS023	138 kV	46"	57.9 [1471]	46.1 [1171]	143.9 [3655]	453	406	778	825
S14080048MASS024	138 kV	48"	59.9 [1521]	48.1 [1222]	150.2 [3815]	472	422	809	857
S14080050MASS025	138 kV	50"	61.9 [1572]	50.1 [1273]	156.4 [3973]	492	439	840	889
S14080052MASS028	138-161 kV	52"	63.9 [1623]	52.1 [1323]	162.7 [4133]	510	454	871	921
S14080054VASS021	161 kV	54"	65.2 [1656]	54 [1372]	133.8 [3399]	529	469	900	951
S14080054VASS027	161 kV	54"	65.2 [1656]	54 [1372]	157.1 [3990]	529	469	900	951
S14080062VASS019	161 kV	62"	73.6 [1869]	62 [1575]	134.5 [3416]	605	532	1022	1076
S14080062VASS026	161 kV	62"	73.6 [1869]	62 [1575]	161.6 [4105]	605	532	1022	1076
S14080066VASS022	161 kV	66"	77.2 [1961]	65.7 [1669]	149.7 [3802]	640	560	1078	1134
S14080066VASS032	161 kV	66"	77.2 [1961]	65.7 [1669]	188.5 [4788]	640	560	1078	1134
S14080072VASS020	161 kV	72"	83.2 [2113]	71.7 [1821]	147.9 [3757]	697	605	1169	1226
S14080072VASS031	161 kV	72"	83.2 [2113]	71.7 [1821]	190.6 [4841]	697	605	1169	1226
S14080078VASS029	161-230 kV	78"	89.2 [2266]	77.7 [1974]	188.8 [4796]	754	649	1258	1317
S14080078VASS042	161-230 kV	78"	89.2 [2266]	77.7 [1974]	239.3 [6078]	754	649	1258	1317
S14080084VASS028	230 kV	84"	95.2 [2418]	83.7 [2126]	190.9 [4849]	811	691	1347	1407
S14080084VASS041	230 kV	84"	95.2 [2418]	83.7 [2126]	241.4 [6132]	811	691	1347	1407

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CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S14080090VASS026	230 kV	90"	101.2 [2570]	89.7 [2278]	189.2 [4806]	869	733	1435	1497
S14080090VASS039	230 kV	90"	101.2 [2570]	89.7 [2278]	239.6 [6086]	869	733	1435	1497
S14080096VASS025	230 kV	96"	107.2 [2723]	95.7 [2431]	191.3 [4859]	926	787	1523	1586
S14080096VASS038	230 kV	96"	107.2 [2723]	95.7 [2431]	241.7 [6139]	926	787	1523	1586

Application Notes:

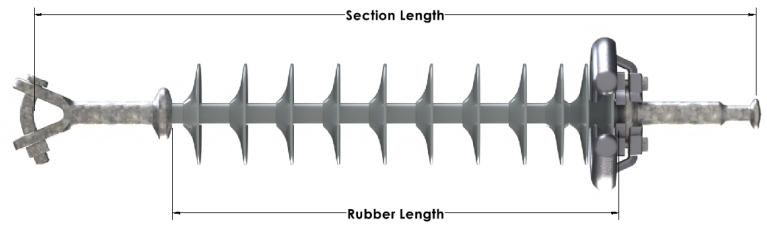
- M_ = injection molded design
- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

TRANSMISSION INSULATORS POLYMER SUSPENSION HV [115kV-230kV]

**30k SML [16mm]
S5 Series**

TENSILE STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S54080040MASS020	115-138 kV	40"	51.9 [1318]	40.1 [1019]	125.2 [3180]	396	357	683	727
S54080042MASS021	115-138 kV	42"	53.9 [1369]	42.1 [1069]	131.5 [3340]	415	373	715	759
S54080044MASS022	138 kV	44"	55.9 [1420]	44.1 [1120]	137.7 [3498]	434	390	746	792
S54080046MASS023	138 kV	46"	57.9 [1471]	46.1 [1171]	143.9 [3655]	453	406	778	825
S54080048MASS024	138 kV	48"	59.9 [1521]	48.1 [1222]	150.2 [3815]	472	422	809	857
S54080050MASS025	138 kV	50"	61.9 [1572]	50.1 [1273]	156.4 [3973]	492	439	840	889
S54080052MASS028	138-161 kV	52"	63.9 [1623]	52.1 [1323]	162.7 [4133]	510	454	871	921
S54080054VASS021	161 kV	54"	65.2 [1656]	54 [1372]	133.8 [3399]	529	469	900	951
S54080054VASS027	161 kV	54"	65.2 [1656]	54 [1372]	157.1 [3990]	529	469	900	951
S54080062VASS019	161 kV	62"	73.6 [1869]	62 [1575]	134.5 [3416]	605	532	1022	1076
S54080062VASS026	161 kV	62"	73.6 [1869]	62 [1575]	161.6 [4105]	605	532	1022	1076
S54080066VASS022	161 kV	66"	77.2 [1961]	65.7 [1669]	149.7 [3802]	640	560	1078	1134
S54080066VASS032	161 kV	66"	77.2 [1961]	65.7 [1669]	188.5 [4788]	640	560	1078	1134
S54080072VASS020	161 kV	72"	83.2 [2113]	71.7 [1821]	147.9 [3757]	697	605	1169	1226
S54080072VASS031	161 kV	72"	83.2 [2113]	71.7 [1821]	190.6 [4841]	697	605	1169	1226
S54080078VASS029	161-230 kV	78"	89.2 [2266]	77.7 [1974]	188.8 [4796]	754	649	1258	1317
S54080078VASS042	161-230 kV	78"	89.2 [2266]	77.7 [1974]	239.3 [6078]	754	649	1258	1317
S54080084VASS028	230 kV	84"	95.2 [2418]	83.7 [2126]	190.9 [4849]	811	691	1347	1407
S54080084VASS041	230 kV	84"	95.2 [2418]	83.7 [2126]	241.4 [6132]	811	691	1347	1407

CONTINUE TO NEXT PAGE...



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S54080090VASS026	230 kV	90"	101.2 [2570]	89.7 [2278]	189.2 [4806]	869	733	1435	1497
S54080090VASS039	230 kV	90"	101.2 [2570]	89.7 [2278]	239.6 [6086]	869	733	1435	1497
S54080096VASS025	230 kV	96"	107.2 [2723]	95.7 [2431]	191.3 [4859]	926	787	1523	1586
S54080096VASS038	230 kV	96"	107.2 [2723]	95.7 [2431]	241.7 [6139]	926	787	1523	1586

Application Notes:

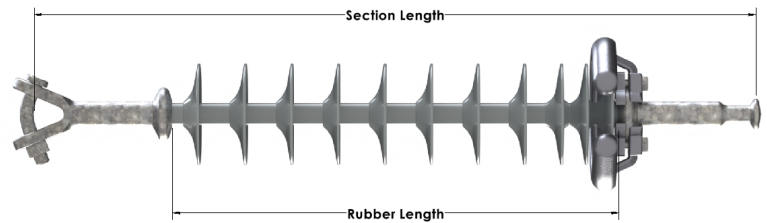
- M_ = injection molded design
- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

TRANSMISSION INSULATORS POLYMER SUSPENSION HV [115kV-230kV]

50k SML [24mm]
S2 Series

TENSILE STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	222 kN	111 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S24080048VASS013	115-138 kV	48"	62.6 [1590]	48.1 [1222]	97.2 [2469]	472	422	809	857
S24080048VASS024	115-138 kV	48"	62.6 [1590]	48.1 [1222]	139.9 [3553]	472	422	809	857
S24080054VASS017	138 kV	54"	68.6 [1742]	54.1 [1374]	118.7 [3015]	529	470	902	953
S24080054VASS023	138 kV	54"	68.6 [1742]	54.1 [1374]	142 [3607]	529	470	902	953
S24080060VASS016	138-161 kV	60"	74.6 [1895]	60.1 [1527]	120.8 [3068]	587	517	994	1047
S24080060VASS025	138-161 kV	60"	74.6 [1895]	60.1 [1527]	155.7 [3955]	587	517	994	1047
S24080066VASS018	161 kV	66"	80.6 [2047]	66.1 [1679]	134.6 [3419]	644	563	1084	1140
S24080066VASS027	161 kV	66"	80.6 [2047]	66.1 [1679]	169.5 [4305]	644	563	1084	1140
S24080072VASS017	161 kV	72"	86.6 [2200]	72.1 [1831]	136.7 [3472]	701	608	1175	1232
S24080072VASS030	161 kV	72"	86.6 [2200]	72.1 [1831]	187.1 [4752]	701	608	1175	1232
S24080078VASS030	230 kV	78"	92.6 [2352]	78.1 [1984]	193.1 [4905]	758	651	1264	1323
S24080078VASS040	230 kV	78"	92.6 [2352]	78.1 [1984]	231.9 [5890]	758	651	1264	1323
S24080084VASS034	230 kV	84"	98.6 [2504]	84.1 [2136]	214.7 [5453]	815	694	1353	1413
S24080084VASS041	230 kV	84"	98.6 [2504]	84.1 [2136]	241.8 [6142]	815	694	1353	1413
S24080090VASS027	230 kV	90"	104.6 [2657]	90.1 [2289]	193.5 [4915]	872	777	1441	1503
S24080090VASS039	230 kV	90"	104.6 [2657]	90.1 [2289]	240.1 [6099]	872	777	1441	1503
S24080096VASS025	230 kV	96"	110.6 [2809]	96.1 [2441]	191.7 [4869]	930	819	1528	1592
S24080096VASS038	230 kV	96"	110.6 [2809]	96.1 [2441]	242.2 [6152]	930	819	1528	1592

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

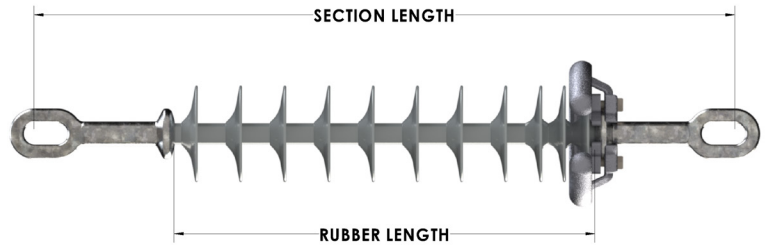


TRANSMISSION INSULATORS POLYMER SUSPENSION HV [138kV-230kV]

80k SML [32mm]
S4 Series

TENSILE STRENGTH RATING

	SML	RTL
S4	80 klb	40 klb
S4	356 kN	178 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S49090048VASS013	115-138 kV	48"	69.1 [1755]	48.1 [1222]	97.2 [2469]	472	422	809	857
S49090048VASS024	115-138 kV	48"	69.1 [1755]	48.1 [1222]	139.9 [3553]	472	422	809	857
S49090054VASS017	138 kV	54"	75.1 [1908]	54.1 [1374]	118.7 [3015]	529	470	902	953
S49090054VASS023	138 kV	54"	75.1 [1908]	54.1 [1374]	142 [3607]	529	470	902	953
S49090060VASS016	138-161 kV	60"	81.1 [2060]	60.1 [1527]	120.8 [3068]	587	517	994	1047
S49090060VASS025	138-161 kV	60"	81.1 [2060]	60.1 [1527]	155.7 [3955]	587	517	994	1047
S49090066VASS018	161 kV	66"	87.1 [2212]	66.1 [1679]	134.6 [3419]	644	563	1084	1140
S49090066VASS027	161 kV	66"	87.1 [2212]	66.1 [1679]	169.5 [4305]	644	563	1084	1140
S49090072VASS017	161 kV	72"	93.1 [2365]	72.1 [1831]	136.7 [3472]	701	608	1175	1232
S49090072VASS030	161 kV	72"	93.1 [2365]	72.1 [1831]	187.1 [4752]	701	608	1175	1232
S49090078VASS030	230 kV	78"	99.1 [2517]	78.1 [1984]	193.1 [4905]	758	651	1264	1323
S49090078VASS040	230 kV	78"	99.1 [2517]	78.1 [1984]	231.9 [5890]	758	651	1264	1323
S49090084VASS034	230 kV	84"	105.1 [2670]	84.1 [2136]	214.7 [5453]	815	694	1353	1413
S49090084VASS041	230 kV	84"	105.1 [2670]	84.1 [2136]	241.8 [6142]	815	694	1353	1413
S49090090VASS027	230 kV	90"	111.1 [2822]	90.1 [2289]	193.5 [4915]	872	777	1441	1503
S49090090VASS039	230 kV	90"	111.1 [2822]	90.1 [2289]	240.1 [6099]	872	777	1441	1503
S49090096VASS025	230 kV	96"	117.1 [2974]	96.1 [2441]	191.7 [4869]	930	819	1528	1592
S49090096VASS038	230 kV	96"	117.1 [2974]	96.1 [2441]	242.2 [6152]	930	819	1528	1592

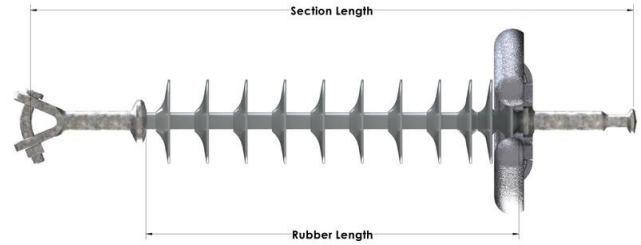
Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For custom designs, contact transmission@macleanpower.com



TENSILE STRENGTH RATING

	SML	RTL
S1	25klb	12.5 klb
S1	111.2 kN	55.6 kN



**ELECTRICAL
FLASHOVER (kV)**

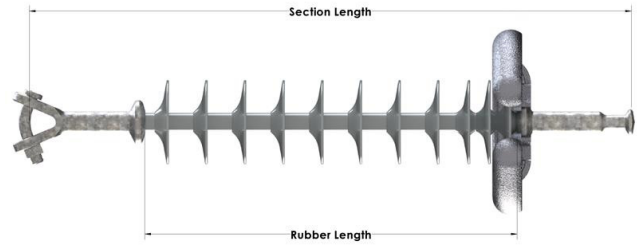
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S14080102VBSS049	345 kV	102"	113.6 [2885]	102 [2591]	290.9 [7389]	981	858	1614	1679
S14080102VBAL059	345 kV	102"	113.6 [2885]	102.6 [2606]	366.3 [9304]	986	862	1623	1688
S14080108VBSS048	345 kV	108"	119.6 [3038]	108 [2743]	293 [7442]	1025	896	1701	1767
S14080108VBAL057	345 kV	108"	119.6 [3038]	108.6 [2758]	363.3 [9228]	1030	900	1710	1776
S14080114VBSS046	345 kV	114"	125.6 [3190]	114 [2896]	291.8 [7412]	1069	933	1788	1855
S14080114VBAL055	345 kV	114"	125.6 [3190]	114.6 [2911]	360.2 [9149]	1073	937	1797	1863
S14080120VBSS045	345 kV	120"	131.6 [3343]	120 [3048]	293.3 [7450]	1113	966	1875	1942
S14080120VBSS063	345 kV	120"	131.6 [3343]	120 [3048]	363.2 [9225]	1113	966	1875	1942
S14080126VBSS043	345 kV	126"	137.6 [3495]	126 [3200]	291.6 [7407]	1157	1008	1961	2029
S14080126VBSS061	345 kV	126"	137.6 [3495]	126 [3200]	361.4 [9180]	1157	1008	1961	2029

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

TENSILE STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S54080102VBSS049	345 kV	102"	113.6 [2885]	102 [2591]	290.9 [7389]	981	858	1614	1679
S54080102VBAL059	345 kV	102"	113.6 [2885]	102.6 [2606]	366.3 [9304]	986	862	1623	1688
S54080108VBSS048	345 kV	108"	119.6 [3038]	108 [2743]	293 [7442]	1025	896	1701	1767
S54080108VBAL057	345 kV	108"	119.6 [3038]	108.6 [2758]	363.3 [9228]	1030	900	1710	1776
S54080114VBSS046	345 kV	114"	125.6 [3190]	114 [2896]	291.8 [7412]	1069	933	1788	1855
S54080114VBAL055	345 kV	114"	125.6 [3190]	114.6 [2911]	360.2 [9149]	1073	937	1797	1863
S54080120VBSS045	345 kV	120"	131.6 [3343]	120 [3048]	293.3 [7450]	1113	966	1875	1942
S54080120VBSS063	345 kV	120"	131.6 [3343]	120 [3048]	363.2 [9225]	1113	966	1875	1942
S54080126VBSS043	345 kV	126"	137.6 [3495]	126 [3200]	291.6 [7407]	1157	1008	1961	2029
S54080126VBSS061	345 kV	126"	137.6 [3495]	126 [3200]	361.4 [9180]	1157	1008	1961	2029
S54080102VGSS049	345 kV	102"	113.6 [2885]	99.8 [2535]	290.9 [7389]	965	844	1582	1647
S54080102VGAL058	345 kV	102"	113.6 [2885]	99.8 [2535]	366.3 [9304]	965	844	1582	1647
S54080108VGSS048	345 kV	108"	119.6 [3038]	105.8 [2687]	293 [7442]	1009	882	1670	1735
S54080108VGAL058	345 kV	108"	119.6 [3038]	105.8 [2687]	363.3 [9228]	1009	882	1670	1735
S54080114VGSS046	345 kV	114"	125.6 [3190]	111.8 [2840]	291.8 [7412]	1053	920	1756	1823
S54080114VGAL056	345 kV	114"	125.6 [3190]	111.8 [2840]	360.2 [9149]	1053	920	1756	1823
S54080120VGSS045	345 kV	120"	131.6 [3343]	117.8 [2992]	293.3 [7450]	1097	955	1843	1910
S54080120VGSS063	345 kV	120"	131.6 [3343]	117.8 [2992]	363.2 [9225]	1097	955	1843	1910
S54080126VGSS043	345 kV	126"	137.6 [3495]	123.8 [3145]	291.6 [7407]	1141	993	1929	1997
S54080126VGSS061	345 kV	126"	137.6 [3495]	123.8 [3145]	361.4 [9180]	1141	993	1929	1997

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

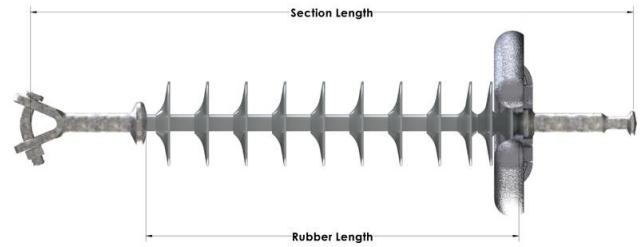


TRANSMISSION INSULATORS POLYMER SUSPENSION EHV [345kV]

50k SML [24mm]
S2 Series

TENSILE STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	222 kN	111 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S24080102VBSS049	345 kV	102"	116.6 [2962]	102.1 [2593]	290.8 [7386]	982	859	1616	1680
S24080102VBAL059	345 kV	102"	116.6 [2962]	102.7 [2609]	366.3 [9304]	982	863	1625	1689
S24080108VBSS048	345 kV	108"	122.6 [3114]	108.1 [2746]	293.0 [7442]	1026	897	1703	1768
S24080108VBAL057	345 kV	108"	122.6 [3114]	108.7 [2761]	363.3 [9228]	1030	901	1712	1777
S24080114VBSS046	345 kV	114"	128.6 [3266]	114.1 [2898]	291.2 [7396]	1070	934	1790	1856
S24080114VBAL055	345 kV	114"	128.6 [3266]	114.7 [2913]	360.2 [9149]	1074	937	1798	1865
S24080120VBSS045	345 kV	120"	134.6 [3419]	120.1 [3051]	293.3 [7450]	1114	966	1876	1943
S24080120VBSS063	345 kV	120"	134.6 [3419]	120.1 [3051]	363.2 [9225]	1114	966	1876	1943
S24080126VBSS043	345 kV	126"	140.6 [3571]	126.1 [3203]	291.6 [7407]	1158	1009	1962	2030
S24080126VBSS061	345 kV	126"	140.6 [3571]	126.1 [3203]	361.4 [9180]	1158	1009	1962	2030
S24080102VGSS049	345 kV	102"	116.6 [2962]	98.5 [2502]	290.8 [7386]	952	835	1563	1627
S24080102VGAL058	345 kV	102"	116.6 [2962]	98.5 [2502]	362.4 [9205]	952	835	1563	1627
S24080108VGSS048	345 kV	108"	122.6 [3114]	104.5 [2654]	293.0 [7442]	1000	874	1651	1716
S24080108VGAL058	345 kV	108"	122.6 [3114]	104.5 [2654]	368.3 [9355]	1000	874	1651	1716
S24080114VGSS046	345 kV	114"	128.6 [3266]	110.5 [2807]	291.2 [7396]	1043	912	1738	1804
S24080114VGAL056	345 kV	114"	128.6 [3266]	110.5 [2807]	365.4 [9281]	1043	912	1738	1804
S24080120VGSS045	345 kV	120"	134.6 [3419]	116.5 [2959]	293.3 [7450]	1087	948	1824	1891
S24080120VGSS063	345 kV	120"	134.6 [3419]	116.5 [2959]	363.2 [9225]	1087	948	1824	1891
S24080126VGSS043	345 kV	126"	140.6 [3571]	122.5 [3112]	291.6 [7407]	1131	983	1911	1978
S24080126VGSS061	345 kV	126"	140.6 [3571]	122.5 [3112]	361.4 [9180]	1131	983	1911	1978

Application Notes:

- V₋ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

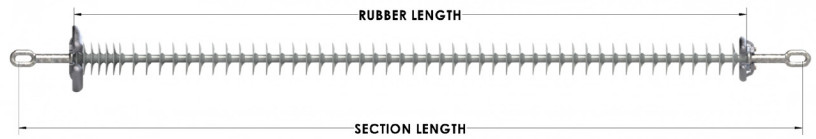


TRANSMISSION INSULATORS POLYMER SUSPENSION EHV [345kV]

80k SML [32mm]
S4 Series

TENSILE STRENGTH RATING

	SML	RTL
S4	80 klb	40 klb
S4	356 kN	178 kN



ELECTRICAL FLASHOVER (kV)

CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S49090102VBSS049	345 kV	102"	123.1 [3127]	102.1 [2593]	290.8 [7386]	982	859	1616	1680
S49090102VBAL059	345 kV	102"	123.1 [3127]	102.7 [2609]	366.3 [9304]	986	863	1625	1689
S49090108VBSS048	345 kV	108"	129.1 [3279]	108.1 [2746]	293 [7442]	1026	897	1703	1768
S49090108VBAL057	345 kV	108"	129.1 [3279]	108.7 [2761]	363.3 [9228]	1030	901	1712	1777
S49090114VBSS046	345 kV	114"	135.1 [3432]	114.1 [2898]	291.8 [7412]	1070	934	1790	1856
S49090114VBAL055	345 kV	114"	135.1 [3432]	114.7 [2913]	360.2 [9149]	1074	937	1798	1865
S49090120VBSS046	345 kV	120"	141.1 [3584]	120.1 [3051]	293.3 [7450]	1114	966	1876	1943
S49090120VBSS063	345 kV	120"	141.1 [3584]	120.1 [3051]	363.2 [9225]	1114	966	1876	1943
S49090126VBSS043	345 kV	126"	147.1 [3736]	126.1 [3203]	291.6 [7407]	1158	1009	1962	2030
S49090126VBSS061	345 kV	126"	147.1 [3736]	126.1 [3203]	361.4 [9180]	1158	1009	1962	2030
S49090102VGSS049	345 kV	102"	123.1 [3127]	98.5 [2502]	290.9 [7389]	952	835	1563	1627
S49090102VGAL058	345 kV	102"	123.1 [3127]	98.5 [2502]	362.4 [9205]	952	835	1563	1627
S49090108VGSS048	345 kV	108"	129.1 [3279]	104.5 [2654]	293 [7442]	1000	874	1651	1716
S49090108VGAL056	345 kV	108"	129.1 [3279]	104.5 [2654]	359.4 [9129]	1000	874	1651	1716
S49090114VGSS046	345 kV	114"	135.1 [3432]	110.5 [2807]	291.8 [7412]	1043	912	1738	1804
S49090114VGAL056	345 kV	114"	135.1 [3432]	110.5 [2807]	365.4 [9281]	1043	912	1738	1804
S49090120VGSS046	345 kV	120"	141.1 [3584]	116.5 [2959]	293.3 [7450]	1087	948	1824	1891
S49090120VGSS063	345 kV	120"	141.1 [3584]	116.5 [2959]	363.2 [9225]	1087	948	1824	1891
S49090126VGSS043	345 kV	126"	147.1 [3736]	122.5 [3112]	291.6 [7407]	1131	983	1911	1978
S49090126VGSS061	345 kV	126"	147.1 [3736]	122.5 [3112]	361.4 [9180]	1131	983	1911	1978

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For custom designs, contact transmission@macleanpower.com

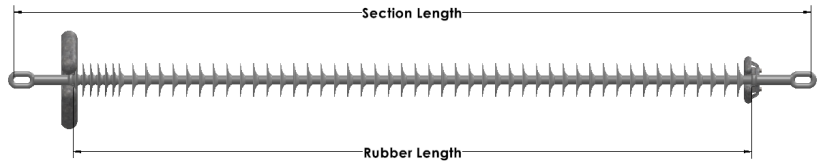


TRANSMISSION INSULATORS POLYMER SUSPENSION EHV [500kV]

80k SML [32mm]
S4 Series

TENSILE STRENGTH RATING

	SML	RTL
S4	80 klb	40 klb
S4	356 kN	178 kN



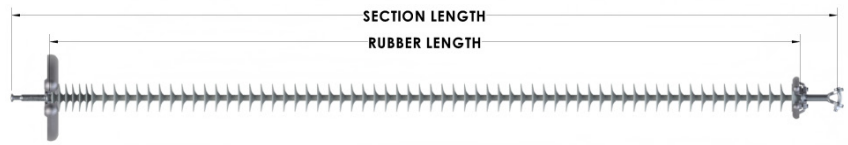
CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S49090132VV6L064	500 kV	132"	153.1 [3889]	128.6 [3266]	417 [10592]	1176	1026	1998	2067
S49090132VV6L086	500 kV	132"	153.1 [3889]	128.6 [3266]	516.2 [13111]	1176	1026	1998	2067
S49090138VV6L062	500 kV	138"	159.1 [4041]	134.6 [3419]	414 [10516]	1220	1068	2084	2153
S49090138VV6L086	500 kV	138"	159.1 [4041]	134.6 [3419]	522.2 [13264]	1220	1068	2084	2153
S49090144VV6S069	500 kV	144"	165.1 [4194]	140.6 [3571]	409.2 [10394]	1264	1109	2170	2240
S49090144VV6L086	500 kV	144"	165.1 [4194]	140.6 [3571]	528.2 [13416]	1264	1109	2170	2240
S49090150VV6S068	500 kV	150"	171.1 [4346]	146.6 [3724]	411.3 [10447]	1308	1149	2256	2323
S49090150VV6L084	500 kV	150"	171.1 [4346]	146.6 [3724]	525.2 [13340]	1309	1149	2256	2323

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For custom designs, contact transmission@macleanpower.com

TENSILE STRENGTH RATING

	SML	RTL
S5	30 klb	15 klb
S5	133 kN	66.5 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S54080132VV6L064	500 kV	132"	143.6 [3647]	129.8 [3297]	417 [10592]	1185	1035	2015	2084
S54080132VV6L086	500 kV	132"	143.6 [3647]	129.8 [3297]	516.2 [13111]	1185	1035	2015	2084
S54080138VV6L062	500 kV	138"	149.6 [3800]	135.8 [3449]	414 [10516]	1229	1076	2101	2171
S54080138VV6L086	500 kV	138"	149.6 [3800]	135.8 [3449]	522.2 [13264]	1229	1076	2101	2171
S54080144VV6S069	500 kV	144"	155.6 [3952]	141.8 [3602]	409.2 [10394]	1272	1117	2187	2257
S54080144VV6L086	500 kV	144"	155.6 [3952]	141.8 [3602]	528.2 [13416]	1272	1117	2187	2257
S54080150VV6S068	500 kV	150"	161.6 [4105]	147.8 [3754]	411.3 [10447]	1316	1157	2273	2343
S54080150VV6L084	500 kV	150"	161.6 [4105]	147.8 [3754]	525.2 [13340]	1316	1157	2273	2343

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

TENSILE STRENGTH RATING

	SML	RTL
S2	50 klb	25 klb
S2	210 kN	105 kN



CATALOG NUMBER	TYPICAL LINE VOLTAGE	RUBBER LENGTH	SECTION LENGTH in/[mm]	DRY ARC DISTANCE in/[mm]	LEAKAGE DISTANCE in/[mm]	ELECTRICAL FLASHOVER (kV)			
						60 Hz DRY	60 Hz WET	CIFO+	CIFO-
S24080132VV6L064	500 kV	132"	146.6 [3724]	128.6 [3266]	419.5 [10655]	1176	1026	1998	2067
S24080132VV6L086	500 kV	132"	146.6 [3724]	128.6 [3266]	516.2 [13111]	1176	1026	1998	2067
S24080138VV6L062	500 kV	138"	152.6 [3876]	134.6 [3419]	414.0 [10516]	1220	1068	2084	2153
S24080138VV6L086	500 kV	138"	152.6 [3876]	134.6 [3419]	522.2 [13264]	1220	1068	2084	2153
S24080144VV6S069	500 kV	144"	158.6 [4028]	140.6 [3571]	409.2 [10394]	1264	1109	2170	2240
S24080144VV6L086	500 kV	144"	158.6 [4028]	140.6 [3571]	528.2 [13416]	1264	1109	2170	2240
S24080150VV6S068	500 kV	150"	164.6 [4181]	146.6 [3724]	411.3 [10447]	1308	1149	2256	2323
S24080150VV6L084	500 kV	150"	164.6 [4181]	146.6 [3724]	525.2 [13340]	1309	1149	2256	2323

Application Notes:

- V_ = extruded design
- Published electrical values include the corona ring
- For alternate end fittings, see the end fitting page
- For other end fitting combinations, see dimensional changes on PS4 / PS5
- For custom designs, contact transmission@macleanpower.com

MP



TRANSMISSION INSULATORS BRACED POST



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP

TRANSMISSION INSULATORS

BRACED POST

BRACED POST

Unique insulator design that combines the cantilever properties of a horizontal line post with the tension strength of a suspension insulator to make a high strength insulator assembly. The suspension insulator, or brace, is attached to the line post and to the tower via connection hardware. When loaded, the brace goes into tension and is the primary support mechanism for the assembly. The line post provides stability for transverse (tension & compression) & longitudinal loads exerted onto the assembly.

CONNECTION HARDWARE

The hardware used to connect the brace to the post and tower can be supplied in a variety of combinations. Typically, the hardware used is greater than or equal to the SML rating of the brace insulator, and the type of connection is determined by the end fittings supplied on the suspension. Options for connection hardware discussed in later sections.

VERTICAL LOAD

Downward load applied to the assembly, usually determined by the weight of the conductor.

TENSION LOAD

Transverse load pulling perpendicularly away from the tower, essentially putting the line post in tension.

COMPRESSION LOAD

Transverse load pulling perpendicularly into the tower, compressing the line post towards the tower.

LONGITUDINAL LOAD

Side load applied to the assembly. Ideally, the load on each side of the assembly will be equal / balanced, resulting in no longitudinal load. Longitudinal loading is critical when loads are unbalanced and for broken conductor consideration.

COMBINED LOAD CURVE

Load curve combines the effects of the various loads and plots working and ultimate strength of the assembly. Load curves are supplied upon request.

WORKING LOAD CURVE

The maximum load that can be applied to the insulator for long periods of time, without damaging or fatiguing the insulator.

BRACED POST LOAD APPLICATION

The maximum load (or worst-case load) of a specific application should fit right at or below the working load curve for that respective design. This max load is determined by the customer, and should consider environmental influences (wind, ice, etc.) along with the utility's safety factor practice. Max load applications that surpass the working curve require upgrades in strength for the braced post.

BRACED POST DESIGN ENHANCEMENTS

Depending on the specific loading requirements, there are many ways to upgrade the strength of a braced post, listed below are a few of the most common upgrades.

- Increase the SML of the brace insulator [~ increase vertical loading capability]
- Increase the rod diameter of the line post [~ higher vertical / transverse loading capability]
- Change from traditional gain base to high strength bolt circle [~ improves longitudinal loading capability]
- Eliminate the upsweep angle to horizontal post [~ improves compression loading capability]

B2	90	1	057	B	1	1	068	M	X
LP CORE ROD	LP TOWER EF	LP LINE EF	SECTION LENGTH	HARDWARE TYPE	BRACE SML	BRACE EF	HEIGHT	MOLDED/EXTRUDED	CORONA RING

B2 LP CORE ROD

B2 = 2.5"
B3 = 3.0"
B4 = 3.5"

90 LP TOWER EF

Base options depend on line post core rod. See line post catalog breakdowns for options: LP15-16, LP23-24, LP31-32

1 LP LINE EF

1 = Drop Tongue
C = Ext. Drop Tongue
E = High Strength Bracket
F = Vertical RAM Bracket
H = Horizontal RAM Bracket

057 SECTION LENGTH

Pole to Conductor CL

B HARDWARE TYPE

B = Basic Hardware
T = Turnbuckle
P = Adj. Plate

1 BRACE SML

1 = 25k
5 = 30k
6 = 36k
2 = 50k

1 BRACE EF

1 = Eye / Eye
2 = Y / Ball
3 = Eye / Ball
4 = Y / Eye
5 = Y / Y
6 = Sock / Ball

068 HEIGHT

Base to Vang Distance

M MOLDED/EXTRUDED

M** = Standard
A = 2.5" Incremental Spacing
B = 2.0" Incremental Spacing
C = 1.6" Incremental Spacing

X CORONA RING (SUSP.)

Tower	Line
X = None	X = None
A = None	A = 8"
B = None	B = 12"
C = None	C = 17"
D = 8"	D = 8"
E = 12"	E = 12"
F = 17"	F = 17"
G = 8"	G = 12"
H = 12"	H = 17"
V = 8"	V = 17"

Key:

- EF = end fitting
- LP = line post
- SML = specified mechanical load

Notes

- Some options may be limited by rod diameter
- **Standard contamination only available for B2
- Don't see what you need? We've got more design options available! Please contact transmission@macleanpower.com for assistance



TRANSMISSION INSULATORS BRACED POST

Custom Braced Post Request Sheet

Name: _____

Company: _____

Contact Number: _____

Project Title: _____

Quantity Required: _____

Requested Delivery Date: _____

System Voltage: _____

CUSTOM BRACED POST DESIGN

ID NUMBER	DESCRIPTION	NOMINAL	MAX	MIN
PSL	Post Section Length (in)			
SSL	Susp. Section Length (in)			
H	Assembly Height (in)			
A	Vang Length (in)			
B	Brace Length (in)			
C	Brace Angle (deg)			
D	Post UpSweep Angle (deg)			

MECHANICAL LOAD REQUIREMENTS (Circle One & Fill in Below)

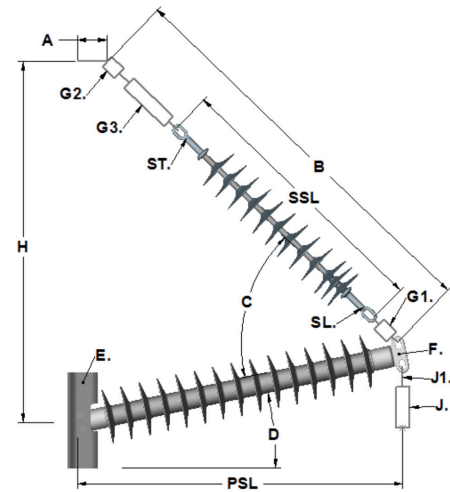
	FACTORY OF SAFETY = 1 (ULTIMATE)	FACTORY OF SAFETY = 2 (WORKING)
Tension:		Lbs.
Vertical:		Lbs.
Longitudinal:		Lbs.
Compression:		Lbs.

ELECTRICAL REQUIREMENTS (MINIMUM)

Leakage:	in
Dry Arc Length:	in
60 Hz Flashover DRY:	kV
60 Hz Flashover WET:	kV
CIFO+:	kV
CIFO-:	kV

CORONA RINGS REQUIRED ON (Circle All That Apply)

1. None
2. Suspension
3. Post



POST INSULATOR CUSTOMIZATION

NAME	ID NUMBER	DESCRIPTION
Post Base Type	E	
Post Line End Fitting	F	

SUSPENSION INSULATOR CUSTOMIZATION

NAME	ID NUMBER	DESCRIPTION
Low End Fitting	SL	
Tower End Fitting	ST	

HARDWARE ATTACHMENT CUSTOMIZATION

NAME	ID NUMBER	DESCRIPTION
Susp. to Post Connect	G1	
Susp. to Tower (Vang)	G2	

CONDUCTOR ATTACHMENT HARDWARE

NAME	ID NUMBER	DESCRIPTION
Suspension Clamp	J	
Attachment Hardware	J1	
Other		

EXTENSION TO TOWER (Select One Option)

G3	None / Insulator Only
	Steel Strap
	Turnbuckle
	Other (Specify)



VOLTAGE	BP STRIKE DISTANCE	POST CORE ROD OD BP SECTION LENGTH (0° UPSWEEP)		
		B2 2.5"	B3 3"	B4 3.5"
69kV	24"	34"	-	-
69kV	35"	46"	-	-
115kV	39"	50"	-	-
115kV	50"	61"	66"	-
138kV	55"	67"	73"	-
138kV	60"	72"	78"	-
161kV	65"	77"	83"	-
161kV	70"	83"	90"	-
230kV	75"	88"	95"	-
230kV	80"	93"	99"	-
230kV	85"	98"	104"	-
230kV	90"	103"	109"	-
230kV	95"	108"	114"	-
345kV	100"	-	119"	126"
345kV	108"	-	127"	132"
345kV	116"	-	135"	140"
345kV	125"	-	-	148"

Ideal LP Rod OD for BP Length

Viable BP Design, best to upsize LP Rod OD

Standard Strength Application:

- Horizontal post = 0° upsweep
- Base connection to tower
 - 5" bolt circle
 - 8"x10" flat base
 - Gain base 12" mount
- B2 w/ 25k brace SML
- B3 w/ 30k brace SML
- Post length: see table

High Strength Application:

- Horizontal post = 0° upsweep
- Base connection to tower
 - 5" bolt circle for B3
 - 7" bolt circle for B4
- B3 w/ 50k brace SML
- B4 w/ 50k brace SML
- High strength bracket / RAM
- Post length: see table

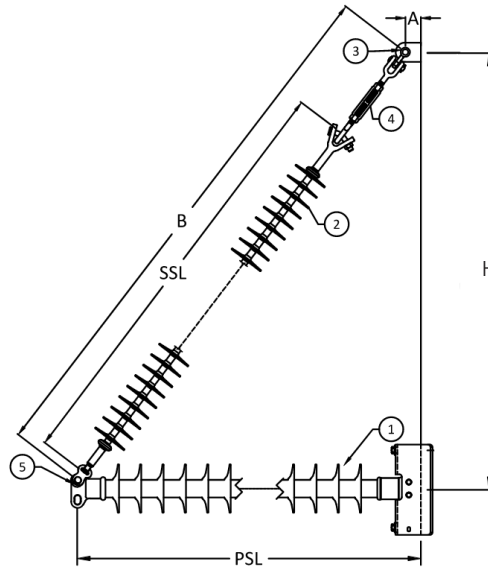


TRANSMISSION INSULATORS BRACED POST HV [69kV-138kV]

B2 Braced Post 0° Upsweep

Assembly BOM:

- 1) 2.5" Line Post (0° Upsweep)
 - H2 91 10
 - Gain Base / Drop Tongue
- 2) 25k Suspension Insulator
 - S1 40 80
 - Y-Clevis / 52-5 Ball
- 3) 30k Anchor Shackle
 - ASH-55-BC
- 4) 26k Turnbuckle
 - G-227-NBC-3/4x6C
 - Or
 - G-227-NBC-3/4x12C
- 5) 30k Socket Y-Clevis
 - SYC-56



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B2911034T12052MX	69 kV	57.5"	51"	57°	34"	37.9"	24.3"	63.8"	243	221	413	506	21148	10574	8112 Lbs.
B2911034T12063MX	69 kV	71"	58.5"	63°	34"	37.9"	24.9"	63.8"	248	227	422	516	22198	11099	8112 Lbs.
B2911042T12054MX	69 kV	56.5"	50.5"	53°	42"	41.9"	31.1"	85.0"	305	281	521	615	19866	9933	4483 Lbs.
B2911042T12065MX	69 kV	72"	58"	58°	42"	41.9"	31.7"	85.0"	310	286	530	624	21176	10588	4483 Lbs.
B2911046T12056MX	69-115 kV	58.5"	52.5"	51°	46"	45.9"	34.9"	95.6"	339	313	581	672	19418	9709	3472 Lbs.
B2911046T12067MX	69-115 kV	74.5"	60"	56°	46"	45.9"	35.5"	95.6"	344	318	590	680	20801	10401	3472 Lbs.
B2911050T12057MX	115 kV	60.5"	54"	49°	50"	49.9"	38.8"	106.1"	373	345	642	726	19002	9501	2746 Lbs.
B2911050T12069MX	115 kV	76.5"	62"	55°	50"	49.9"	39.3"	106.1"	378	350	651	734	20429	10214	2746 Lbs.
B2911054T12059MX	115 kV	62.5"	56"	48°	54"	53.9"	42.7"	116.7"	408	378	704	778	18614	9307	2211 Lbs.
B2911054T12071MX	115 kV	78.5"	64"	53°	54"	53.9"	43.2"	116.7"	412	382	712	785	20078	10039	2211 Lbs.
B2911056T12060MX	115 kV	63.5"	57"	47°	56"	55.9"	44.5"	122.0"	425	393	734	803	18420	9210	1995 Lbs.
B2911056T12072MX	115 kV	80"	66"	53°	56"	55.9"	45.1"	122.0"	430	398	742	810	19908	9954	1995 Lbs.
B2911061T12061MX	115-138 kV	64.5"	57.5"	45°	61"	60.0"	49.7"	137.9"	470	435	815	866	17788	8894	1566 Lbs.
B2911061T12073MX	115-138 kV	81"	66"	51°	61"	59.9"	49.9"	137.9"	472	437	819	868	19720	9860	1566 Lbs.
B2911067T12063CX	138 kV	66"	59.5"	43°	67.1"	65.6"	54.9"	132.5"	516	476	897	943	17174	8587	1195 Lbs.
B2911067T12076CX	138 kV	83.5"	68"	49°	67.1"	65.6"	55.4"	132.5"	520	481	906	951	18830	9415	1195 Lbs.

Application Notes:

- Published electrical values include the corona ring
- Min / max height determined by turnbuckle
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs

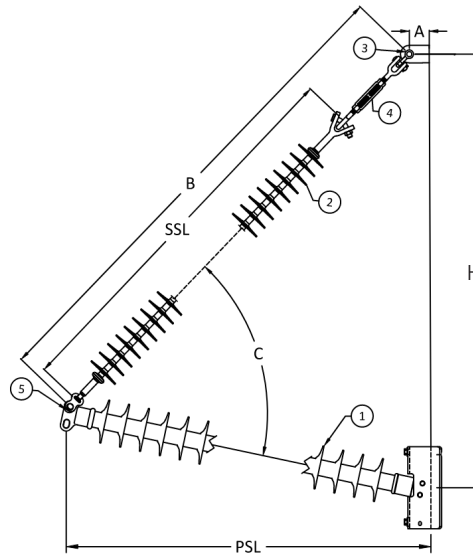


TRANSMISSION INSULATORS BRACED POST HV [69kV-138kV]

B2 Braced Post 12° Upsweep

Assembly BOM:

- 1) 2.5" Line Post (12° Upsweep)
 - H2 90 10
 - Gain Base / Drop Tongue
- 2) 25k Suspension Insulator
 - S1 40 80
 - Y-Clevis / 52-5 Ball
- 3) 30k Anchor Shackle
 - ASH-55-BC
- 4) 26k Turnbuckle
 - G-227-NBC-3/4x6C
- 5) 30k Socket Y-Clevis
 - SYC-56



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B2901034T12060MX	69 kV	65"	58.5"	71°	33.7"	37.9"	25.6"	63.8"	255	233	433	527	24200	12100	8316 Lbs.
B2901041T12063MX	69 kV	65.5"	60"	66°	41.5"	41.9"	32.7"	85.0"	319	294	545	638	23330	11665	4636 Lbs.
B2901045T12066MX	69-115 kV	65.5"	62.5"	64°	45.4"	45.9"	36.4"	95.6"	352	326	605	693	23028	11514	3602 Lbs.
B2901049T12069MX	115 kV	71.5"	65.5"	63°	49.3"	49.9"	40.2"	106.1"	386	358	665	746	22753	11376	2857 Lbs.
B2901053T12071MX	115 kV	74.5"	68"	61°	53.3"	53.9"	44.7"	116.7"	426	395	736	805	22452	11226	2294 Lbs.
B2901056T12073MX	115 kV	76"	69.5"	61°	55.2"	55.9"	46.0"	122.0"	437	405	757	821	22334	11167	2078 Lbs.
B2901060T12075MX	115-138 kV	78"	71.5"	59°	60.1"	59.9"	50.7"	137.9"	479	443	831	880	21898	10949	1634 Lbs.
B2901066T12078CX	138 kV	81.5"	75"	57°	66"	65.6"	56.2"	132.5"	527	487	918	962	21435	10718	1253 Lbs.

Application Notes:

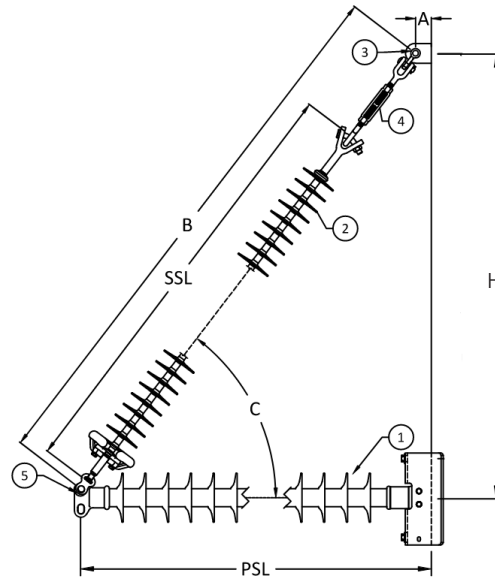
- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs
- Min / max height determined by turnbuckle

TRANSMISSION INSULATORS BRACED POST HV [115kV-230kV]

**B2 Braced Post
0° Upsweep**

Assembly BOM:

- 1) 2.5" Line Post (0° Upsweep)
 - H2 91 10
 - Gain Base / Drop Tongue
 - 6" Corona Ring*
- 2) 25k Suspension Insulator
 - S1 40 80
 - Y-Clevis / 52-5 Ball
 - 8" Corona Ring
- 3) 30k Anchor Shackle
 - ASH-55-BC
- 4) 26k Turnbuckle
 - G-227-NBC-3/4x6C
Or
 - G-227-NBC-3/4x12C
- 5) 30k Socket Y-Clevis
 - SYC-56



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B2911056T12060MA	115 kV	63.5"	57"	47°	56"	55.9"	42.1"	122.0"	403	373	694	771	18420	9210	1995 Lbs.
B2911056T12072MA	115 kV	79.5"	65"	53°	56"	55.9"	42.4"	122.0"	406	376	700	775	19908	9954	1995 Lbs.
B2911061T12061MA	115-138 kV	64.5"	57.5"	45°	61"	59.9"	46.8"	137.9"	445	412	770	831	17788	8894	1567 Lbs.
B2911061T12073MA	115-138 kV	80.5"	66"	51°	61"	55.9"	47.3"	137.9"	449	416	777	837	19360	9860	1567 Lbs.
B2911067T12063CA	138 kV	66"	59.5"	43°	67.1"	65.6"	52.6"	132.5"	496	458	861	908	17168	8584	1195 Lbs.
B2911067T12076CA	138 kV	83.5"	68"	49°	67.1"	65.6"	52.9"	132.5"	498	461	866	913	18830	9415	1195 Lbs.
B2911071T12067AA	138-161 kV	70.5"	64"	44°	71.1"	71.6"	56.6"	163.5"	531	490	924	968	17275	8638	1014 Lbs.
B2911071T12080AA	138-161 kV	88"	72.5"	49°	71.1"	71.6"	56.9"	163.5"	533	492	928	972	18822	9411	1014 Lbs.
B2911077T12070AA	161 kV	73"	66"	42°	77.1"	77.6"	62.4"	165.6"	581	535	1015	1054	16835	8417	805 Lbs.
B2911077T12083AA	161 kV	91"	75"	47°	77.1"	77.6"	62.6"	165.6"	583	537	1019	1058	18405	9203	805 Lbs.
B2911083T12072CA	161 kV	75.5"	68.5"	41°	83.1"	83.6"	68.5"	163.9"	634	581	1110	1145	16421	8211	650 Lbs.
B2911083T12086CA	161 kV	93.5"	77.5"	46°	83.1"	83.6"	68.7"	163.9"	636	583	1113	1148	18017	9008	650 Lbs.
B2911085T12074AA	230 kV	78"	70.5"	41°	85.1"	86.6"	70.7"	201.8"	653	598	1144	1177	16493	8247	607 Lbs.
B2911085T12088AA	230 kV	96"	79.5"	46°	85.1"	86.6"	70.9"	201.8"	655	599	1148	1180	18035	9017	607 Lbs.
B2911091T12073AA	230 kV	77"	69.5"	39°	91.1"	90.6"	76.4"	219.5"	701	639	1231	1260	15713	7856	499 Lbs.

CONTINUE TO NEXT PAGE...



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B2911091T12087AA	230 kV	96"	79"	44°	91.1"	90.6"	76.6"	219.5"	703	641	1234	1262	17382	8691	499 Lbs.
B2911097T12075VA	230 kV	79.5"	71.5"	38°	97.1"	96.6"	82.2"	234.5"	751	681	1319	1344	15367	7684	415 Lbs.
B2911097T12090VA	230 kV	98.5"	81"	43°	97.1"	96.6"	82.4"	234.5"	752	682	1322	1346	17037	8519	415 Lbs.
B2911103T12077VA	230 kV	81.5"	73.5"	37°	103.1"	102.6"	88.5"	254.0"	803	724	1412	1433	15035	7517	349 Lbs.
B2911103T12092VA	230 kV	101"	83.5"	42°	103.1"	102.6"	88.6"	254.0"	804	725	1415	1435	16709	8354	349 Lbs.

Application Notes:

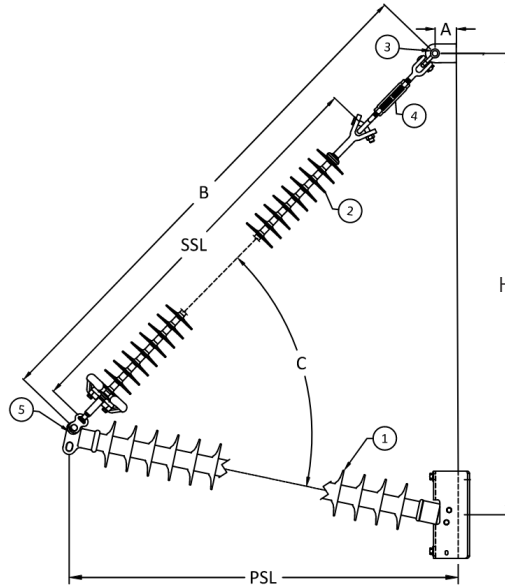
- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs
- Min / max height determined by turnbuckle
- *Depends on application voltage

TRANSMISSION INSULATORS BRACED POST HV [115kV-230kV]

**B2 Braced Post
12° Upsweep**

Assembly BOM:

- 1) 2.5" Line Post (12° Upsweep)
 - H2 90 10
 - Gain Base / Drop Tongue
 - 6" Corona Ring*
- 2) 25k Suspension Insulator
 - S1 40 80
 - Y-Clevis / 52-5 Ball
 - 8" Corona Ring
- 3) 30k Anchor Shackle
 - ASH-55-BC
- 4) 26k Turnbuckle
 - G-227-NBC-3/4x6C
Or
 - G-227-NBC-3/4x12C
- 5) 30k Socket Y-Clevis
 - SYC-56



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B2901056T12073MA	115 kV	75.5"	69.5"	61°	55.2"	55.9"	43.0"	122.0"	411	381	710	783	22324	11162	2078 Lbs.
B2901060T12075MA	115-138 kV	78"	71.5"	59°	60.1"	59.9"	47.8"	137.9"	454	420	786	843	21866	10933	1634 Lbs.
B2901066T12078CA	138 kV	81.5"	75"	57°	66"	65.6"	53.3"	132.5"	502	464	873	920	21435	10718	1253 Lbs.
B2901070T12084AA	138-161 kV	87.5"	80"	57°	69.9"	71.6"	57.3"	163.5"	537	496	936	979	21510	10755	1065 Lbs.
B2901076T12087AA	161 kV	91"	84"	56°	75.8"	77.6"	63.1"	165.6"	587	540	1026	1065	21176	10588	845 Lbs.
B2901082T12091CA	161 kV	94.5"	87.5"	55°	81.7"	83.6"	69.2"	163.9"	640	586	1121	1155	20867	10433	682 Lbs.
B2901084T12089AA	230 kV	93"	86"	53°	83.6"	83.6"	71.3"	163.9"	658	602	1153	1185	20471	10235	639 Lbs.
B2901090T12095AA	230 kV	98"	91"	53°	89.5"	90.6"	77.0"	219.5"	707	644	1241	1269	20337	10168	525 Lbs.
B2901096T12098AA	230 kV	102"	94.5"	52°	95.4"	96.6"	82.8"	234.5"	756	685	1329	1353	20069	10034	437 Lbs.
B2901102T12102AA	230 kV	105.5"	98"	51°	101.2"	102.6"	89.0"	254.0"	807	728	1420	1440	19829	9914	368 Lbs.

Application Notes:

- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs
- Min / max height determined by turnbuckle
- *Depends on application voltage

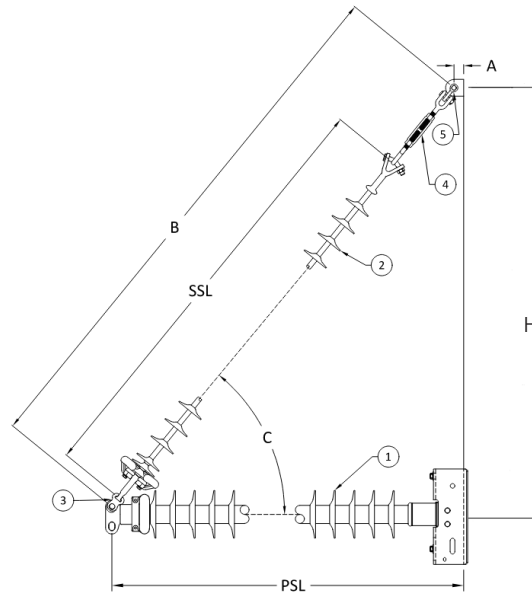


TRANSMISSION INSULATORS BRACED POST HV [115kV - 230kV]

B3 Braced Post 0° Upsweep

Assembly BOM:

- 1) 3.0" Line Post [0° Upsweep]
 - H3 93 10
 - Gain Base / Drop Tongue
 - 6" Corona Ring
- 2) 25k Suspension Insulator
 - S1 40 80
 - Y-Clevis / 52-5 Ball
 - 8" Corona Ring
- 3) 30k Anchor Shackle
 - ASH-55-BC
- 4) 36k Turnbuckle
 - G-227-NBC-7/8x6C
- 5) 30k Socket Y-Clevis
 - SYC-56



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B3931057T52061AX	115 kV	65"	58"	48°	56.6"	53.6"	42.0"	119.9"	402	373	694	770	22125	11063	4014 Lbs.
B3931063T52064CX	115 kV	68"	61"	46°	62.6"	59.6"	47.5"	116.1"	451	418	781	840	21558	10779	3019 Lbs.
B3931067T52070CA	138 kV	74"	67"	47°	66.6"	66.6"	49.7"	129.9"	470	435	815	865	21844	10922	2533 Lbs.
B3931073T52074CA	138 kV	78"	71"	46°	72.6"	73.6"	55.8"	145.6"	524	483	911	956	21511	10755	1982 Lbs.
B3931075T52072AA	161 kV	76"	69"	44°	74.6"	73.6"	57.3"	171.9"	537	495	935	978	20919	10459	1834 Lbs.
B3931081T52074CA	161 kV	78"	71"	43°	80.6"	79.6"	63.2"	163.3"	588	541	1027	1066	20360	10180	1471 Lbs.
B3931089T52077BA	161 kV	81"	74"	41°	88.6"	87.6"	71.0"	161.6"	655	600	1148	1181	19733	9867	1121 Lbs.
B3931089T52077AA	230 kV	81"	74"	41°	88.6"	87.6"	71.4"	215.1"	659	603	1155	1187	19733	9867	1121 Lbs.
B3931095T52080AA	230 kV	84"	77"	40°	94.6"	94.6"	77.1"	230.9"	713	649	1252	1279	19420	9710	928 Lbs.
B3931101T52083AA	230 kV	87"	80"	40°	100.6"	100.6"	82.9"	246.6"	757	686	1330	1354	19131	9565	777 Lbs.
B3931109T52086CA	230 kV	90"	83"	38°	108.6"	108.6"	91.2"	235.1"	826	743	1453	1472	18655	9327	623 Lbs.

Application Notes:

- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs
- Min / max height determined by turnbuckle
- *Depends on application voltage

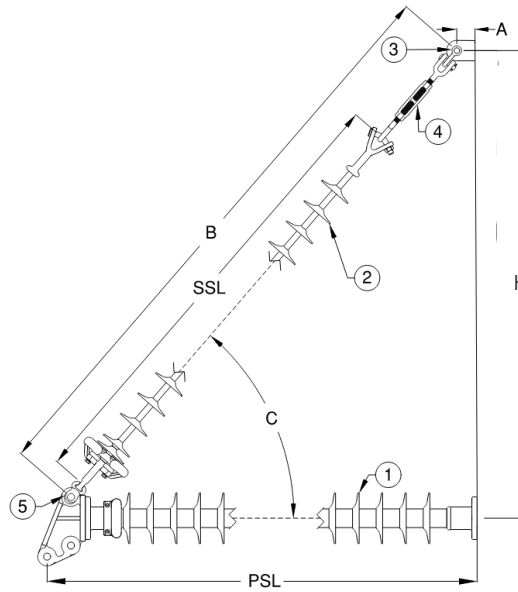


TRANSMISSION INSULATORS BRACED POST HV [115kV - 230kV]

B3 Braced Post 0° Upsweep High Strength

Assembly BOM:

- 1) 3.0" Line Post [0° Upsweep]
 - H3 51 E0
 - 5" Bolt Circle
 - 50k Drop Tongue
 - 6" Corona Ring
- 2) 50k Suspension Insulator
 - S2 40 80
 - Y-Clevis / 52-11 Ball
 - 8" Corona Ring
- 3) 60k Anchor Shackle
 - ASH-66-BC
- 4) 50k Turnbuckle
 - G-227-NBC-1x6C
- 5) 50k Socket Y-Clevis
 - SYC-87



CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B351E065T22084BA	115 kV	88"	80"	53°	65"	72.6"	47.5"	99.5"	451	418	781	840	36824	18412	2714 Lbs.
B351E065T22084AA	115 kV	88"	80"	53°	65"	72.6"	47.5"	128.7"	451	418	781	840	36824	18412	2714 Lbs.
B351E071T22087BA	115 kV	91"	83"	52°	71"	78.6"	53.7"	95.8"	505	467	879	925	36034	18017	2112 Lbs.
B351E071T22087CA	115 kV	91"	83"	52°	71"	78.6"	53.7"	129.9"	505	467	879	925	36034	18017	2112 Lbs.
B351E075T22089BA	138 kV	93"	85"	51°	75"	82.6"	57.7"	124.1"	540	498	941	984	35541	17770	1806 Lbs.
B351E075T22089CA	138 kV	93"	85"	51°	75"	82.6"	57.7"	138.7"	540	498	941	984	35541	17770	1806 Lbs.
B351E081T22092AA	138 kV	96"	88"	49°	81"	88.6"	63.0"	120.4"	586	539	1024	1063	34853	17427	1450 Lbs.
B351E081T22092CA	138 kV	96"	88"	49°	81"	88.6"	63.0"	154.2"	586	539	1024	1063	34853	17427	1450 Lbs.
B351E085T22094CA	161 kV	98"	90"	48°	85"	92.6"	67.6"	134.1"	626	574	1096	1131	34425	17213	1263 Lbs.
B351E085T22094AA	161 kV	98"	90"	48°	85"	92.6"	67.6"	187.7"	626	574	1096	1131	34425	17213	1263 Lbs.
B351E091T22096BA	161 kV	100"	92"	47°	91"	98.6"	72.8"	130.4"	671	613	1176	1207	33653	16827	1038 Lbs.
B351E091T22096CA	161 kV	100"	92"	47°	91"	98.6"	72.8"	179.1"	671	613	1176	1207	33653	16827	1038 Lbs.
B351E099T22100CA	230 kV	104"	96"	46°	99"	106.6"	80.7"	198.8"	738	670	1296	1322	32916	16458	814 Lbs.
B351E099T22100AA	230 kV	104"	96"	46°	99"	106.6"	80.7"	230.9"	738	670	1296	1322	32916	16458	814 Lbs.
B351E107T22103BA	230 kV	107"	99"	44°	107"	114.6"	88.7"	195.1"	805	726	1416	1436	32093	16046	650 Lbs.
B351E107T22103AA	230 kV	107"	99"	44°	107"	114.6"	88.7"	253.5"	805	728	1421	1436	32093	16046	650 Lbs.

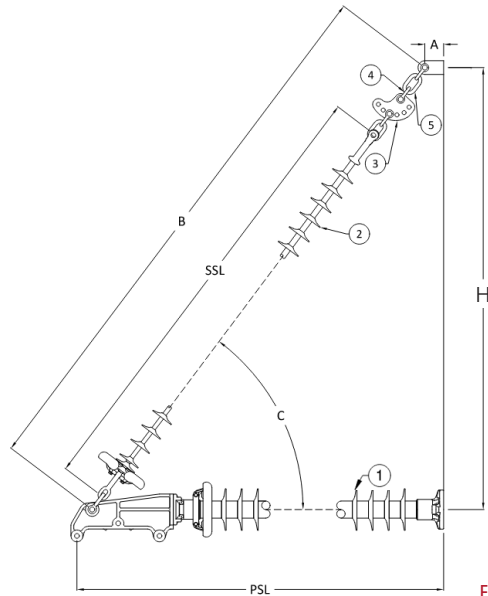
Application Notes:

- Published electrical values include the corona ring
- Min / max height determined by turnbuckle
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs



Assembly BOM:

- 1) 3.5" Line Post [0° Upsweep]
 - H4 70 H0
 - 7" Bolt Circle
 - Horizontal RAM Bracket
 - 12" Corona Ring
- 2) 50k Suspension Insulator
 - S2 40 91
 - Y-Clevis / Oval Eye
 - 12" Corona Ring
- 3) Adjustment Plate
 - ASM-6212-1
- 4) 60k Anchor Shackle
 - ASH-66-BC (x4)
- 5) 60k Chain Link
 - CL-6



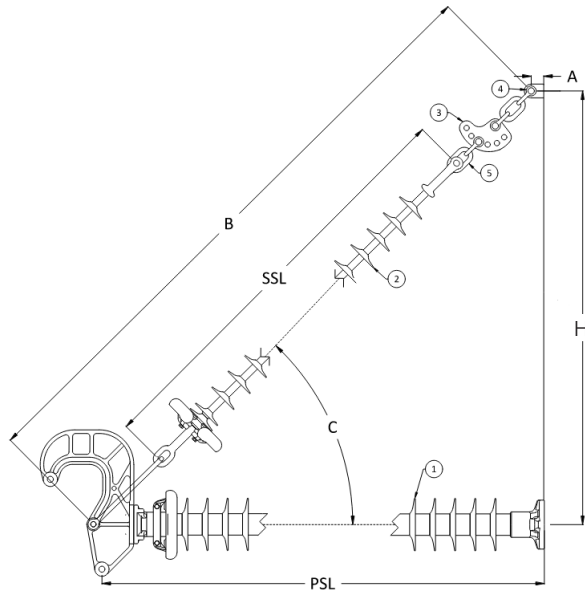
CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B470H132P24156BB	345 kV	158"	155"	49°	131.8"	181.1"	109.7"	330.6"	978	847	1720	1730	37730	18865	656 Lbs.
B470H132P24170BB	345 kV	172"	169"	51°	131.8"	192.1"	109.7"	330.6"	978	847	1720	1730	39092	19546	656 Lbs.
B470H142P24156AB	345 kV	158"	155"	47°	141.8"	188.1"	119.7"	333.7"	1059	893	1858	1866	38280	19140	529 Lbs.
B470H142P24170AB	345 kV	172"	169"	49°	141.8"	198.1"	119.7"	332.1"	1059	893	1858	1866	37975	18987	529 Lbs.
B470H148P24156AB	345 kV	158"	155"	46°	147.8"	192.1"	125.7"	341.6"	1107	921	1940	1946	35846	17923	498 Lbs.
B470H148P24170AB	345 kV	172"	169"	48°	147.8"	202.1"	125.7"	343.8"	1107	921	1940	1946	37309	18654	498 Lbs.

Application Notes:

- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all design
- Min / Max height determined by adjustment plate

Assembly BOM:

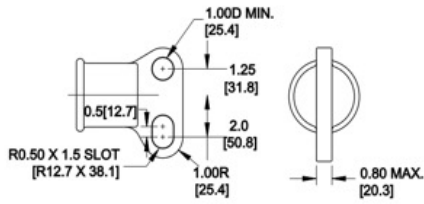
- 1) 3.5" Line Post [0° Upsweep]
 - H4 70 F0
 - 7" Bolt Circle
 - Vertical RAM Bracket
 - 12" Corona Ring
- 2) 50k Suspension Insulator
 - S2 40 91
 - Y-Clevis / Oval Eye
 - 12" Corona Ring
- 3) Adjustment Plate
 - ASM-6212-1
- 4) 60k Anchor Shackle
 - ASH-66-BC (x3)
- 5) 60k Chain Link
 - CL-6



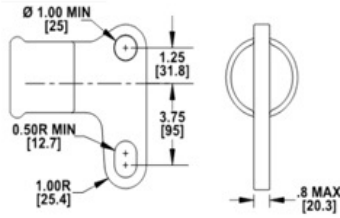
CATALOG NUMBER	TYPICAL LINE VOLTAGE	HEIGHT [H] MAX	HEIGHT [H] MIN	ANGLE [C]	PSL	SSL	DRY ARC	LEAKAGE DISTANCE	ELECTRICAL FLASHOVER (kV)				CANTILEVER LOADS		LONGITUDINAL STIFFNESS
									60 Hz DRY	60 Hz WET	CIFO+	CIFO-	SCL (Lbs)	MDCL (Lbs)	
B470F135P24156CB	345 kV	158"	155"	50°	134.8"	167.1"	109.6"	293.3"	968	846	1718	1728	38071	19036	614 Lbs.
B470F135P24170BB	345 kV	172"	169"	52°	134.8"	179.1"	111.5"	363.5"	993	855	1745	1754	39400	19700	614 Lbs.
B470F143P24156CB	345 kV	158"	155"	48°	142.8"	173.1"	117.2"	291.5"	1039	882	1823	1823	37116	18558	518 Lbs.
B470F143P24170AB	345 kV	172"	169"	50°	142.8"	184.1"	118.3"	360.7"	1048	887	1839	1839	38509	19254	518 Lbs.
B470F151P24156CB	345 kV	158"	155"	46°	150.8"	179.1"	125.1"	293.7"	1102	919	1932	1932	36178	18089	441 Lbs.
B470F151P24170AB	345 kV	172"	169"	49°	150.8"	189.1"	125.8"	361.9"	1108	922	1941	1941	37621	18810	441 Lbs.

Application Notes:

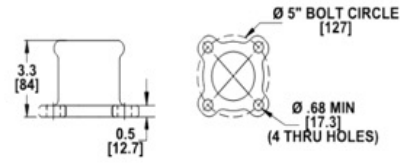
- Published electrical values include the corona ring
- For alternative designs, please complete the braced post design form and contact transmission@macleanpower.com for application support
- PLS-CADD™ load curve data available for all designs
- Min / Max height determined by adjustment plate



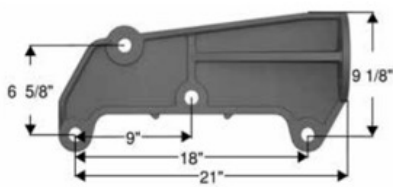
B2 1 - DROP TONGUE



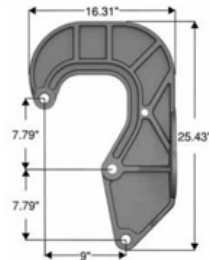
B2 C - EXTENDED DROP TONGUE



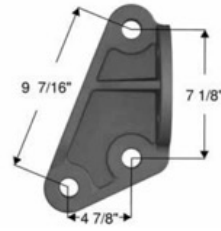
B2 5 - 5" BOLT CIRCLE ROTATED 45°



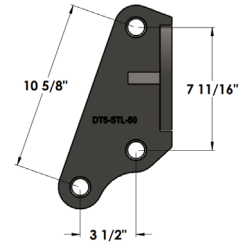
B2 H = HORIZONTAL RAM



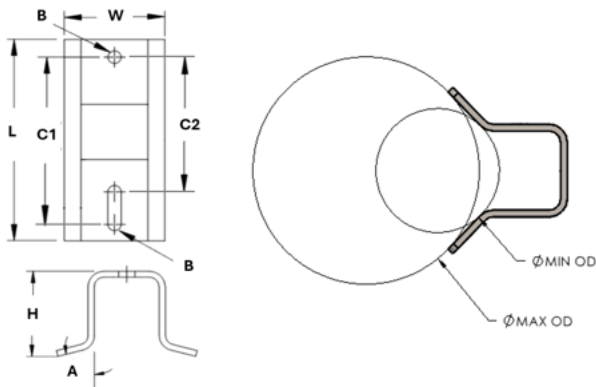
B2 F = VERTICAL RAM



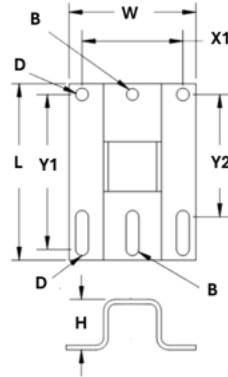
B2 E = HS BRACKET



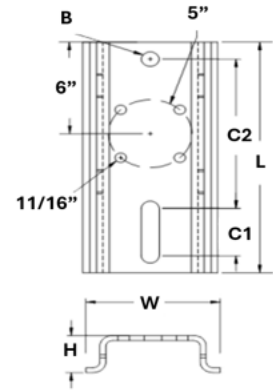
B2 S = HS DROP TONGUE



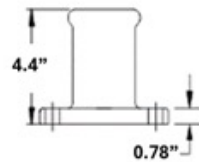
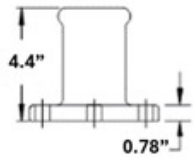
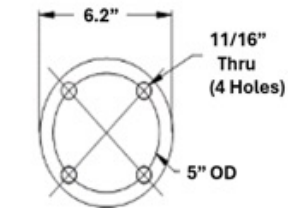
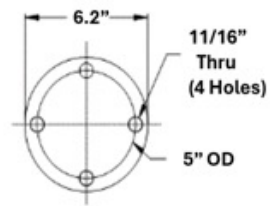
GAIN BASES



FLAT BASES



HS GAIN BASE



50 = 5" BOLT CIRCLE

51 = 5" BC ROTATED 45°

Base Materials:

- Gain base - steel, galvanized
- Flat base - steel, galvanized
- HS gain base - steel, galvanized
- Bolt circle - ductile iron, galvanized

TRANSMISSION INSULATORS BRACED POST B2 SERIES

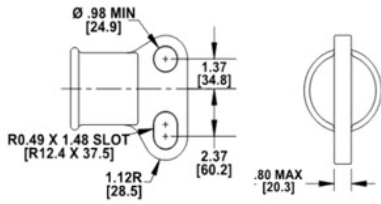
B2 (2.5") Post Bases

CATALOG DIGIT	BASE TYPE	UPSWEEP ANGLE - A	CENTER MOUNT				POLE DIAMETER		BASE OVERALL DIM.			FLAT MOUNT PATTERN				
			SPACING C1	SPACING C2	HOLE B	GAIN ANGLE - A	MIN	MAX	LENGTH L	WIDTH W	HEIGHT H	SPACING W X1	SPACING W X2	SPACING L Y1	SPACING L Y2	HOLE D
90	Gain	12°	12"	10"	0.94"	46°	7.5"	20"	14"	8"	5.8"	-	-	-	-	-
91	Gain	0°	14"	12"	0.94"	46°	7.5"	20"	16.5	8"	5.8"	-	-	-	-	-
92	Gain	12°	14"	12"	0.94"	46°	7.5"	20"	16.5	8"	5.8"	-	-	-	-	-
93	Gain	12°	12"	14"	1.06"	46°	7.5"	20"	16.5	8"	5.8"	-	-	-	-	-
94	Gain	12°	12"	-	0.94"	60°	8"	24"	14"	8"	5.8"	-	-	-	-	-
95	Gain	12°	14"	12"	0.94"	60°	8"	24"	16.5	8"	5.5"	-	-	-	-	-
96	Gain	12°	12"	10"	1.06"	60°	8"	24"	14"	8"	5.2"	-	-	-	-	-
9B	Gain	12°	14"	12"	1.13"	75°	12"	30"	16.5"	-	-	-	-	-	-	-
9L	HS Gain	0°	14"	12"	1.13"	-	7"	16"	17"	9.6"	2.8"	-	-	-	-	-
10	Flat	12°	12"	10"	0.94"	-	8"	24"	14.5"	10"	4.0"	8"	-	12"	10"	0.83"
11	Flat	0°	12"	10"	0.94"	-	-	-	14.5"	10"	4.0"	8"	-	12"	10"	0.83"
13	Flat	12°	13"	10"	0.94"	-	-	-	15"	10"	4.0"	8"	-	12"	10"	0.83"
50	BC	0°	-	-	-	-	-	-	6.2"	6.2"	4.4"	4 Hole - 5" Ø (+)				
51	BC	0°	-	-	-	-	-	-	6.2"	6.2"	4.4"	4 Hole - 5" Ø (x)				

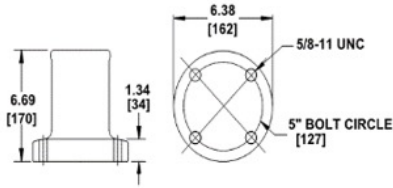
Base Materials:

- Gain base – steel, galvanized
- Flat base – steel, galvanized
- HS gain base – steel, galvanized
- Bolt circle – ductile iron, galvanized

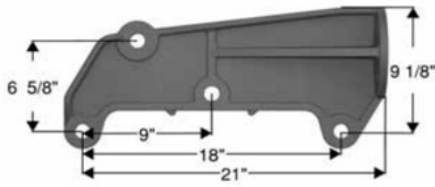




B3 1 - DROP TONGUE



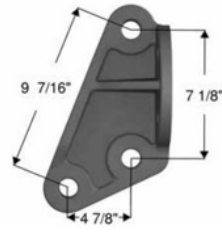
B3 5 - 5" BOLT CIRCLE



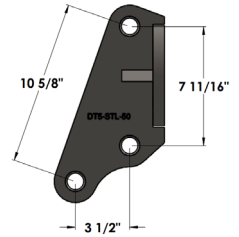
B3 H - HORIZONTAL RAM



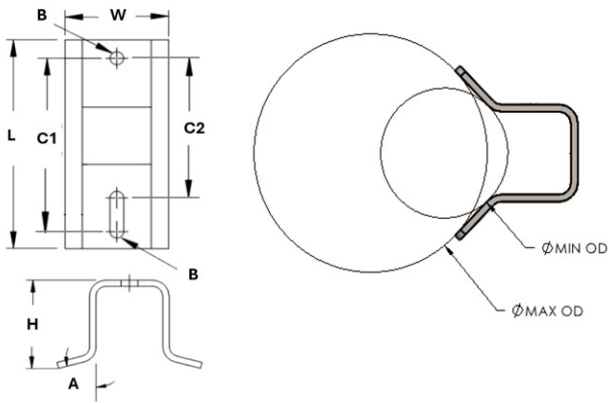
B3 F - VERTICAL RAM



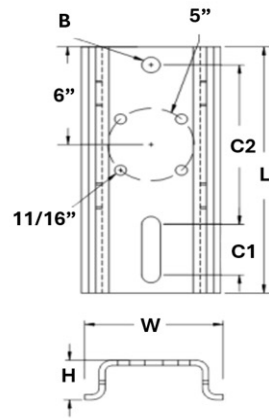
B3 E = HS BRACKET



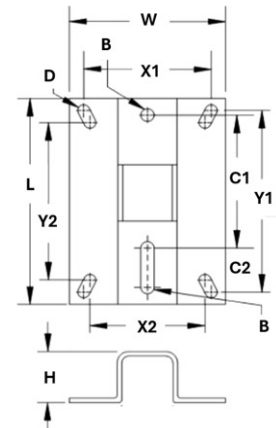
B3 S = HS DROP TONGUE



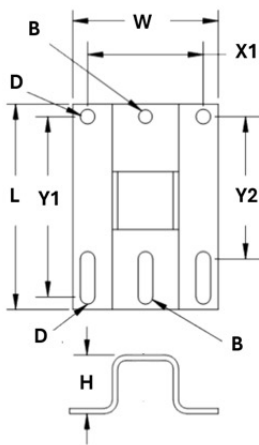
GAIN BASES



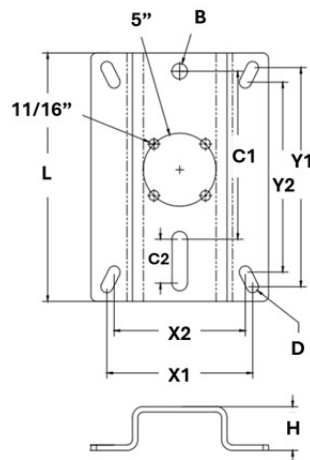
9L / HS GAIN BASE



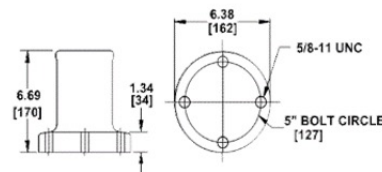
FLAT BASE: PATTERN #1



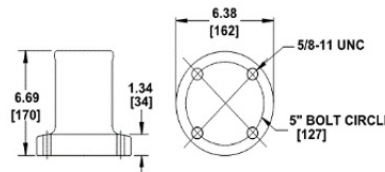
FLAT BASE: PATTERN #2



11 / HS FLAT BASE



5 = 5" BOLT CIRCLE



51 = 5" BOLT CIRCLE ROTATED 45°

Base Materials:

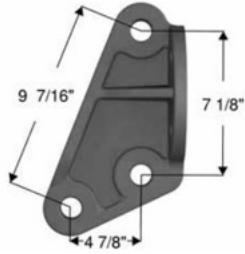
- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized [tapped holes]

CATALOG DIGIT	BASE TYPE	UPSWEEP ANGLE - A	CENTER MOUNT				POLE DIAMETER		BASE OVERALL DIM.			FLAT MOUNT PATTERN				
			SPACING C1	SPACING C2	HOLE B	GAIN ANGLE - A	MIN	MAX	LENGTH L	WIDTH W	HEIGHT H	SPACING W X1	SPACING W X2	SPACING L Y1	SPACING L Y2	HOLE D
90	Gain	17°	15"	11"	1.06"	75°	10"	30"	17"	11.75"	6.1"	-	-	-	-	-
93	Gain	0°	15"	11"	1.06"	75°	10"	30"	17"	11.75"	6.1"	-	-	-	-	-
94	Gain	17°	15"	11"	1.06"	60°	10.5"	25"	17"	11.1"	6.7"	-	-	-	-	-
9L	HS Gain	0°	14"	12"	1.13"	-	8"	24"	17"	9.6"	2.8"	-	-	-	-	-
10	Flat #1	17°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	14"	13"	0.94"
12	Flat #2	17°	14"	12"	1.06"	-	-	-	17"	12.2"	5.4"	9"	-	14"	12"	0.94"
13	Flat #1	0°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	13"	13"	0.94"
11	HS Flat	0°	14"	12"	1.06"	-	-	-	17"	12.3"	5.4"	10"	9"	13"	13"	0.94"
50	BC	0°	-	-	-	-	-	-	6.38"	6.38"	6.69"	4 Hole - 5" Ø (+)				
51	BC	0°	-	-	-	-	-	-	6.38"	6.38"	6.69"	4 Hole - 5" Ø (x)				

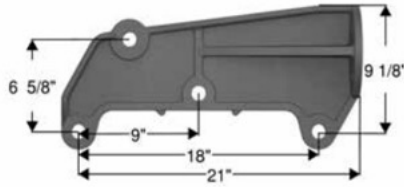
Base Materials:

- Gain base - steel, galvanized
- HS gain base - steel, galvanized
- Anchor fitting - ductile iron, galvanized
- Flat base - steel, galvanized
- HS flat base - steel, galvanized
- Bolt circle - ductile iron, galvanized [tapped holes]

CAST / DUCTILE IRON HIGH STRENGTH BRACKETS [HOT DIPPED GALVANIZED]



E - HS BRACKET

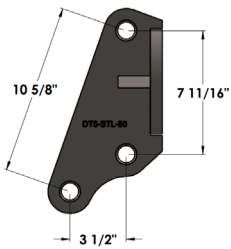


H - HORIZONTAL RAM

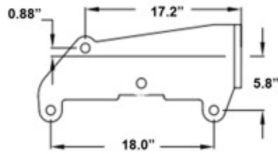


F - VERTICAL RAM

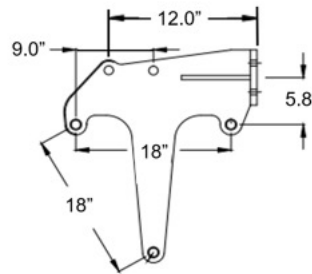
STEEL HIGH STRENGTH BRACKETS [HOT DIPPED GALVANIZED]



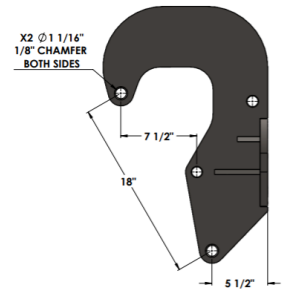
S - HS DROP TONGUE



HORIZONTAL RAM



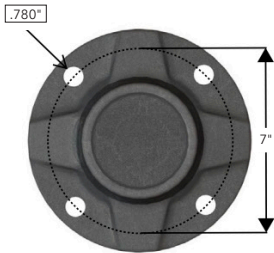
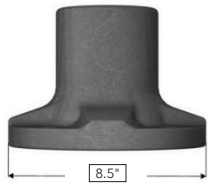
T - HS 3 CONDUCTOR BRACKET



VERTICAL RAM

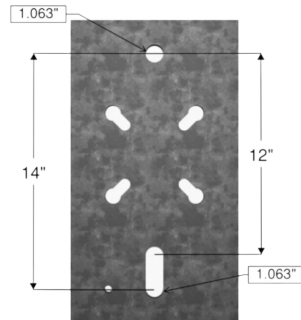
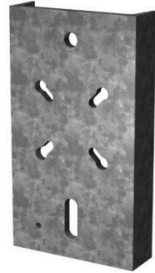
7" BOLT CIRCLE

B470



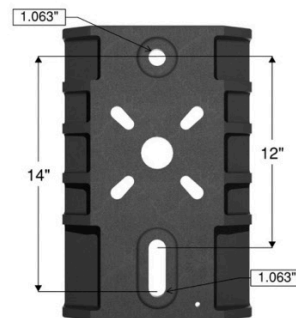
GAIN BASE / STEEL

B47N



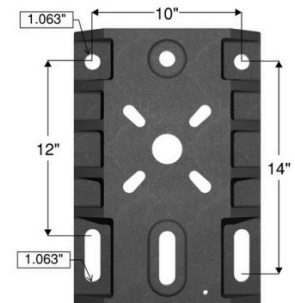
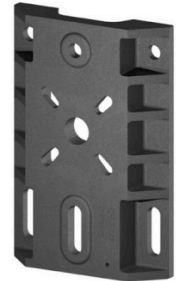
GAIN BASE / CAST

B497



FLAT BASE / CAST

B417



Application Notes:

- The gain and flat bases attach onto the 7" bolt circle
- Bolt assemblies sold separately for 7" bolt circle connection (due to missing tower dimensions)
- For additional support, contact transmission@macleanpower.com

TRANSMISSION

INSULATORS

STRUT POST & PHASE SPACER

ASSEMBLIES



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP

H2	C1	C2	043	M	X	SS	022
LP OD	TOWER END	LINE END	RUBBER LENGTH	MOLDED/EXTRUDED	CORONA RING	SHED PATTERN	SHED COUNT

H2 LP OD

H2 = 2.5"
H3 = 3.0"

C1 TOWER END

C1 = 7/8" Clevis Adapter
60 = Swivel Base 6"
68 = Swivel Base 8"

C2 LINE END

C2 = 1 & 7/8" Clevis Adapter
B1 = Gooseneck 12" Adapter
[52-5 S&B Connections]
C3 = Clevis 6" Adapter
[52-5 S&B Connections]

043 RUBBER LENGTH

Linear Distance EF to EF

M MOLDED/EXTRUDED SHED SPACING

M** = Standard
A = 2.5" Incremental Spacing
B = 2.0" Incremental Spacing
C = 1.6" Incremental Spacing

X CORONA RING

Tower	Line
X = None	X = None
A = None	A = 6"
B = None	B = 12"
C = None	C = 17"
E = 12"	E = 12"

SS SHED PATTERN

SS = Standard
RS = Reverse Shed

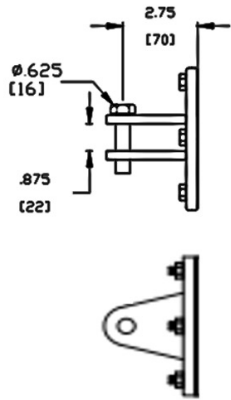
022 SHED COUNT

Notes:

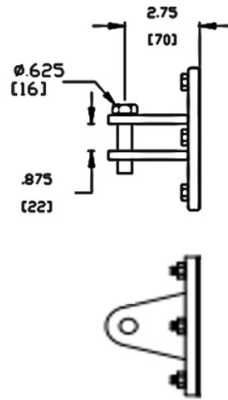
- **Standard contamination only available for H2

CLEVIS FITTINGS

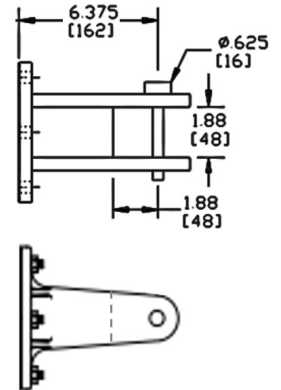
C1 - 7/8" CLEVIS ADAPTER



60 - SWIVEL BASE 6"

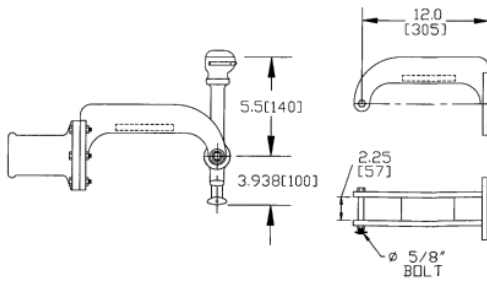


C2 - 1 & 7/8 CLEVIS ADAPTER

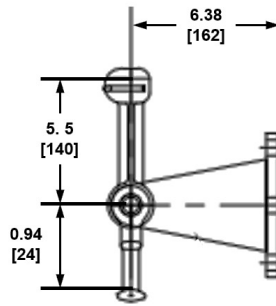


GOOSENECK & ADAPTERS

B1 - GOOSENECK 12" ADAPTER

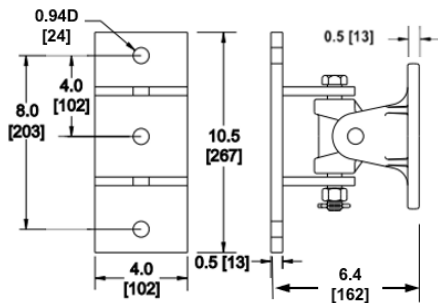


C3 - CLEVIS 6" ADAPTER

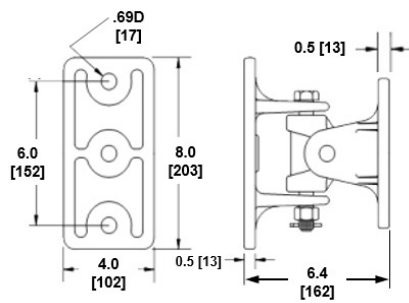


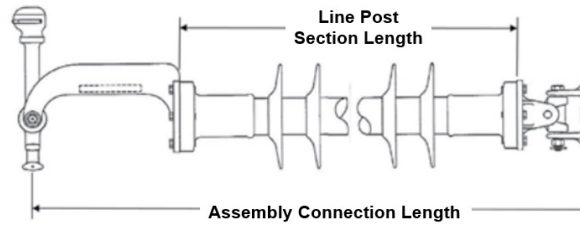
SWIVEL BASES

68 - SWIVEL BASE 8"



60 - SWIVEL BASE

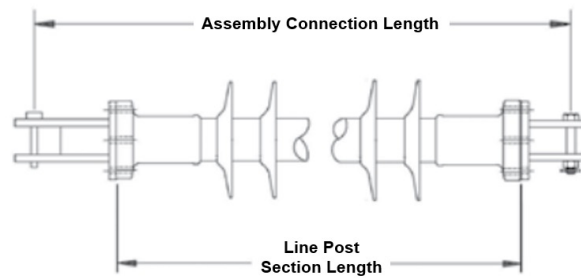




STRUT ASSEMBLY CATALOG NUMBER	ASSEMBLY LENGTH in [mm]	ROD DIAMETER	RUBBER LENGTH	TYPICAL LINE VOLTAGE	SECTION LENGTH in [mm]	DRY ARC in [mm]	LEAKAGE DISTANCE in [mm]	ELECTRICAL FLASHOVER (kV)			
								60 Hz DRY	60 Hz WET	CIFO+	CIFO-
H260B1047MXSS024	73 [1857]	2.5"	47"	115 kV	54.7 [1389]	49 [1245]	127.3 [3234]	464	429	804	857
H260B1050MXSS026	76 [1933]	2.5"	50"	138 kV	57.7 [1466]	52.9 [1344]	137.9 [3503]	498	461	866	912
H260B1058CXSS018	84 [2136]	2.5"	58"	138 kV	65.7 [1669]	60.9 [1547]	139.0 [3531]	568	523	992	1032
H260B1062AASS024	88 [2238]	2.5"	62"	161 kV	69.7 [1770]	62.8 [1595]	170.0 [4318]	585	538	1021	1061
H260B1070CASS021	96 [2441]	2.5"	70"	161 kV	77.7 [1974]	70.8 [1798]	164.5 [4178]	654	598	1145	1178
H260B1084BASS021	110 [2797]	2.5"	84"	230 kV	91.7 [2329]	84.8 [2154]	178.5 [4534]	772	699	1358	1381
H260B1094AASS037	120 [3051]	2.5"	94"	230 kV	101.7 [2583]	94.8 [2408]	260.5 [6617]	856	767	1506	1522
H260B1110ABSS043	136 [3457]	2.5"	110"	345 kV	117.7 [2990]	110.1 [2797]	303.5 [7709]	982	849	1725	1735
H260B1120ABSS047	146 [3711]	2.5"	120"	345 kV	127.7 [3244]	120.1 [3051]	331.5 [8420]	1062	895	1864	1871
H260B1130ABSS051	156 [3965]	2.5"	130"	345 kV	137.7 [3498]	130.1 [3305]	359.5 [9131]	1142	942	1999	2005
H360B1070CASS021	102 [2586]	3"	70"	161 kV	83.4 [2118]	71.7 [1821]	172.2 [4374]	661	605	1159	1191
H360B1084AASS033	116 [2941]	3"	84"	230 kV	97.4 [2474]	85.7 [2177]	244.6 [6213]	780	705	1372	1394
H360B1094CASS029	126 [3195]	3"	94"	230 kV	107.4 [2728]	95.7 [2431]	235.1 [5972]	864	773	1519	1535
H360B1110ABSS043	142 [3601]	3"	110"	345 kV	123.4 [3134]	110.4 [2804]	319.3 [8110]	984	850	1730	1739
H360B1120ABSS047	152 [3856]	3"	120"	345 kV	133.4 [3388]	120.4 [3058]	348.7 [8557]	1065	897	1868	1875
H360B1130ABSS051	162 [4110]	3"	130"	345 kV	143.4 [3642]	130.4 [3312]	378.2 [9606]	1144	943	2003	2009

Application Notes:

- H260B1 & H360B1 series strut assemblies used to brace suspension insulators to prevent line clashing
- Works with polymer & ceramic insulator string, connecting to the ball end fitting
- Published electrical values include the corona ring
- For custom length & leakage strut posts, contact transmission@macleanpower.com



STRUT ASSEMBLY CATALOG NUMBER	ASSEMBLY LENGTH in [mm]	ROD DIAMETER	RUBBER LENGTH	TYPICAL LINE VOLTAGE	SECTION LENGTH in [mm]	DRY ARC in [mm]	LEAKAGE DISTANCE in [mm]	ELECTRICAL FLASHOVER (kV)			
								60 Hz DRY	60 Hz WET	CIFO+ 804	CIFO- 857
H2C1C2047MXSS024	63 [1608]	2.5"	47"	115 kV	54.7 [1389]	49 [1245]	127.3 [3234]	464	429	804	857
H2C1C2050MXSS026	66 [1685]	2.5"	50"	138 kV	57.7 [1466]	52.9 [1344]	137.9 [3503]	498	461	866	912
H2C1C2058CXSS018	74 [1888]	2.5"	58"	138 kV	65.7 [1669]	60.9 [1547]	139.0 [3531]	568	523	992	1032
H2C1C2062AASS024	78 [1989]	2.5"	62"	161 kV	69.7 [1770]	62.8 [1595]	170.0 [4318]	585	538	1021	1061
H2C1C2070CASS021	86 [2193]	2.5"	70"	161 kV	77.7 [1974]	70.8 [1798]	164.5 [4178]	654	598	1145	1178
H2C1C2084BASS021	100 [2548]	2.5"	84"	230 kV	91.7 [2329]	84.8 [2154]	178.5 [4534]	772	699	1358	1381
H2C1C2094AASS037	110 [2802]	2.5"	94"	230 kV	101.7 [2583]	94.8 [2408]	260.5 [6617]	856	767	1506	1522
H2C1C2110ABSS043	126 [3209]	2.5"	110"	345 kV	117.7 [2990]	110.1 [2797]	303.5 [7709]	982	849	1725	1735
H2C1C2120ABSS047	136 [3463]	2.5"	120"	345 kV	127.7 [3244]	120.1 [3051]	331.5 [8420]	1062	895	1864	1871
H2C1C2130ABSS051	146 [3717]	2.5"	130"	345 kV	137.7 [3498]	130.1 [3305]	359.5 [9131]	1142	942	1999	2005
H3C1C2070CASS021	92 [2337]	3"	70"	161 kV	83.4 [2118]	71.7 [1821]	172.2 [4374]	661	605	1159	1191
H3C1C2084AASS033	106 [2693]	3"	84"	230 kV	97.4 [2474]	85.7 [2177]	244.6 [6213]	780	705	1372	1394
H3C1C2094CASS029	116 [2947]	3"	94"	230 kV	107.4 [2728]	95.7 [2431]	235.1 [5972]	864	773	1519	1535
H3C1C2110ABSS043	132 [3353]	3"	110"	345 kV	123.4 [3134]	110.4 [2804]	319.3 [8110]	984	850	1730	1739
H3C1C2120ABSS047	142 [3607]	3"	120"	345 kV	133.4 [3388]	120.4 [3058]	348.7 [8557]	1065	897	1868	1875
H3C1C2130ABSS051	152 [3861]	3"	130"	345 kV	143.4 [3642]	130.4 [3312]	378.2 [9606]	1144	943	2003	2009

Application Notes:

- H2C1C2 & H3C1C2 series strut assemblies used to brace suspension insulators to prevent line clashing
- Works with polymer & ceramic insulator string
- Published electrical value include the corona ring
- For custom length & leakage strut posts, contact transmission@macleanpower.com

F1 SML	120 PHASE TO PHASE LENGTH	198 LEAKAGE DISTANCE	D CORONA RING	JC CLAMP TYPE	106 CLAMP SIZE
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F SML

- F1 = 25k
- F5 = 30k
- F2 = 50k

120 PHASE TO PHASE LENGTH

Phase to Phase Length From Conductor to Conductor

198 LEAKAGE DISTANCE

Leakage Distance of the Insulator

D CORONA RING

- X = None
- D = 2 x 8" CR
- E = 2 x 12" CR

JC CLAMP TYPE

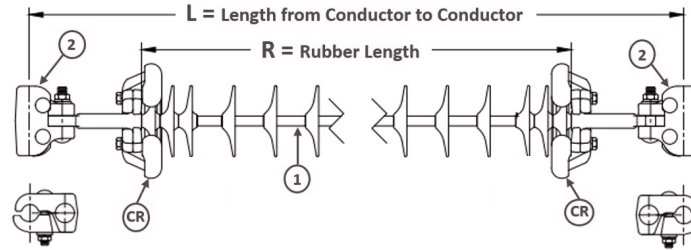
- JC = Jumper Clamp
- LS = HV Suspension Clamp
- CF = EHV Suspension Clamp
- GS = GripSafe™ Suspension Clamp

106 CLAMP SIZE

- LS Series Clamps
- CF Series Clamps
- GS Series Clamps

Assembly BOM:

- Polymer Suspension
- Clamps
 - Jumper Clamp
 - LS Clamp
 - CF Clamp
 - GS Clamp



Note: The leakage table below is provided as a guide to what leakage to apply when designing a phase-to-phase design

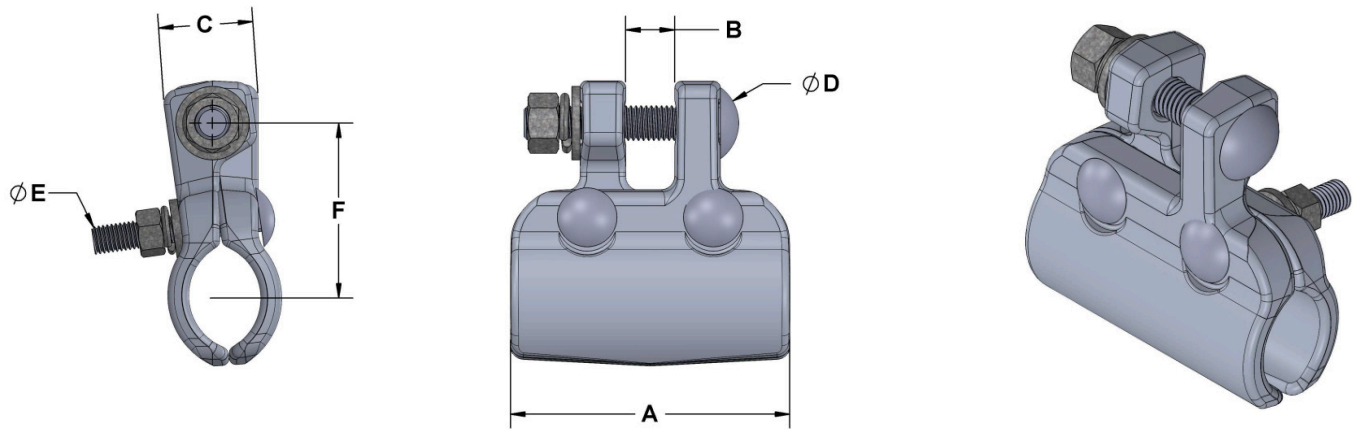
PHASE TO GROUND X $\sqrt{3}$ = PHASE TO PHASE

CONTAMINATION TABLE

PHASE TO PHASE LEAKAGE	LIGHT 0.6 in [16 mm]	MEDIUM 0.8 in [20 mm]	HEAVY 1.0 in [25 mm]	VERY HEAVY 1.2 in [31mm]
46 kV	52.7 [1339]	65.9 [1673]	82.3 [2091]	102.1 [2593]
69 kV	79.0 [2008]	98.8 [2510]	123.5 [3137]	153.2 [3890]
115 kV	131.7 [3346]	164.7 [4183]	205.9 [5229]	255.3 [5229]
138 kV	158.1 [4016]	197.6 [5019]	247.0 [6274]	306.3 [6274]
161 kV	184.4 [4685]	230.6 [5856]	288.2 [7320]	357.4 [7320]
230 kV	263.5 [6693]	329.4 [8366]	411.7 [10457]	510.5 [10457]
345 kV	395.2 [10039]	494.0 [12549]	617.6 [15686]	765.8 [15686]
500 kV	572.8 [14549]	716.0 [18187]	895.0 [22733]	1109.8 [22733]
765 kV	876.4 [22260]	1095.5 [27825]	1369.4 [34782]	1698.0 [34782]

MPS Phase to Phase Features:

- Each phase-to-phase insulator will have stacked sheds on each end to be determined at time of order
- CR = corona rings
 - Generally added at 161kV and above
- 1 = insulator
- 2 = clamp

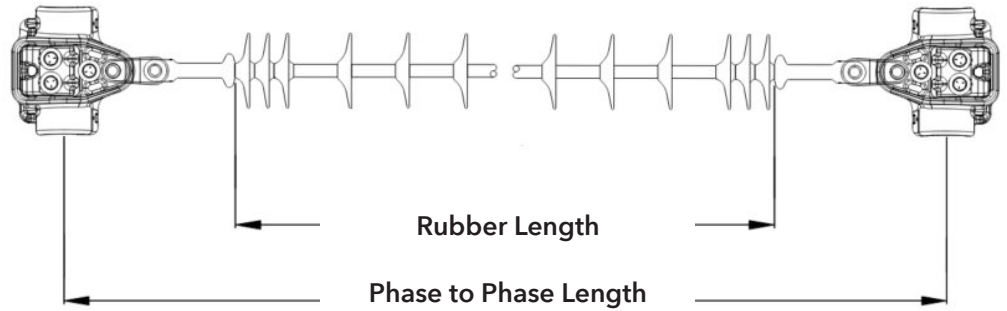


CATALOG NUMBER	CLAMPING RANGE		A	B	C	D	E	F
	MIN.	MAX.						
LPJC-140	0.90"	1.40"	5.00	0.75	1.63	0.63	0.50	2.38
LPJC-200	1.40"	2.00"	5.00	0.75	1.63	0.63	0.50	2.75

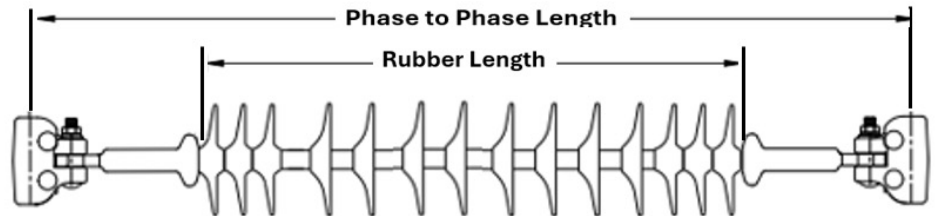
Application Notes:

- For use with and without armor rod

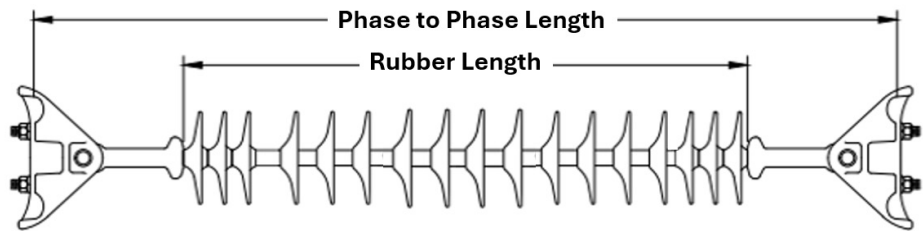
GS Phase Spacer



LPJC Phase Spacer



LS Clamp Phase Spacer



FILL OUT FORM & SUBMIT TO: TRANSMISSION@MACLEANPOWER.COM

Insulator SML (Circle One)	25k	30k	50k	
Phase-to-Phase Length [Center to Center]				
Leakage Distance				
Application Voltage			kV	
Clamp Type (Circle One)	LPJC	LS	CF	GS
Conductor Name / Size				
Armor Rod (Circle One)	Yes / No			

Application Notes:

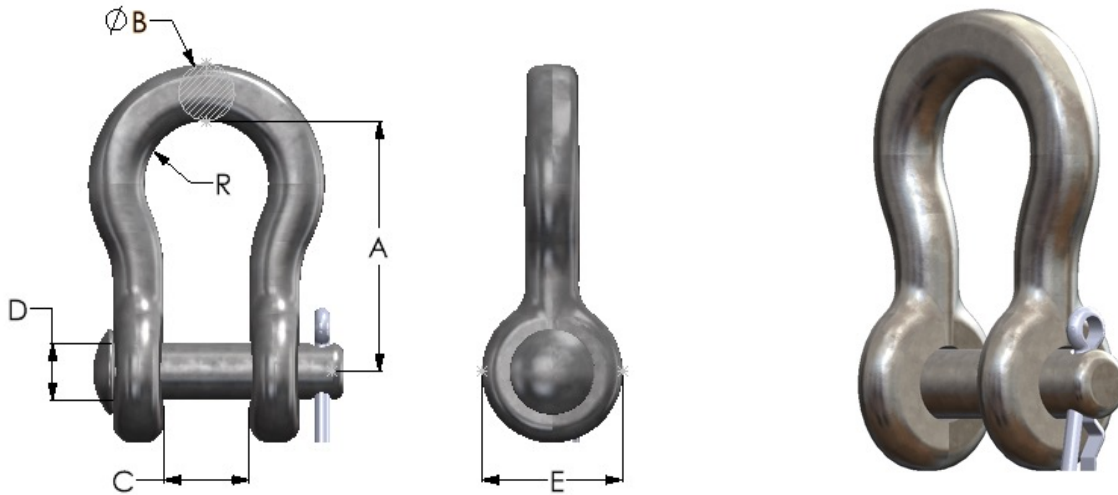
- MPS' extrusion process can make any length needed for your application

TRANSMISSION CONNECTION HARDWARE



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	R	WEIGHT/100
ASH-45-BC	25,000 Lbs.	2.19"	0.5"	0.88"	0.63"	1.38"	0.69"	78 Lbs.
ASH-55-BC	30,000 Lbs.	2.75"	0.63"	0.88"	0.63"	1.5"	0.69"	127 Lbs.
ASH-56-BC	40,000 Lbs.	2.75"	0.63"	1.06"	0.75"	1.75"	0.75"	170 Lbs.
ASH-66-BC	60,000 Lbs.	3.5"	0.88"	1.25"	0.75"	1.88"	1"	230 Lbs.
ASH-66A-BC	60,000 Lbs.	3.5"	0.75"	0.88"	0.75"	1.88"	0.75"	225 Lbs.
ASH-66B-BC	60,000 Lbs.	5"	0.75"	0.88"	0.75"	1.88"	2.13"	262 Lbs.
ASH-67-BC	60,000 Lbs.	3.5"	0.88"	1.25"	0.88"	1.88"	1"	242 Lbs.
ASH-67A-BC	60,000 Lbs.	3.5"	0.75"	0.88"	0.88"	1.88"	0.75"	230 Lbs.
ASH-77-BC	80,000 Lbs.	3.75"	1"	1.44"	0.88"	2.13"	1.13"	240 Lbs.
ASH-78-BC	80,000 Lbs.	3.75"	1"	1.44"	1"	2.13"	1.13"	375 Lbs.
ASH-89-BC	100,000 Lbs.	4.31"	1"	1.69"	1.13"	2.13"	1.38"	528 Lbs.
ASH-89A-BC	100,000 Lbs.	6"	1"	1.19"	1.13"	2.13"	1.06"	690 Lbs.

Materials:

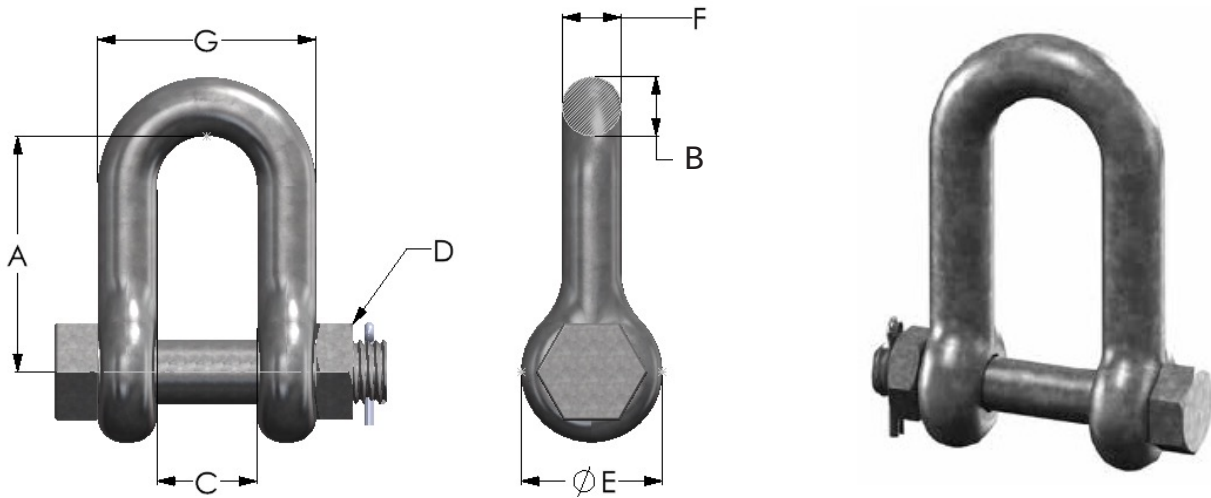
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	WEIGHT/100
CSH-76-BC	70,000 Lbs.	4"	0.88"	1.63"	0.75"	1.88"	0.88"	3.38"	287 Lbs.
CSH-87-BC	80,000 Lbs.	3.5"	1"	1.88"	0.88"	2"	1"	3.88"	425 Lbs.
CSH-1009-BC	150,000 Lbs.	5.63"	1.25"	2.03"	1.13"	2.5"	1.25"	4.5"	850 Lbs.
CSH-1010-BC	100,000 Lbs.	4.63"	1.25"	2"	1.25"	3"	1.25"	4.5"	965 Lbs.
CSH-1011-BC	150,000 Lbs.	4.63"	1.25"	2.13"	1.38"	3"	1.25"	4.5"	1120 Lbs.
CSH-1212-BC	200,000 Lbs.	5.69"	1.5"	0.38"	1.5"	3.63"	1.5"	5.38"	1690 Lbs.

Materials:

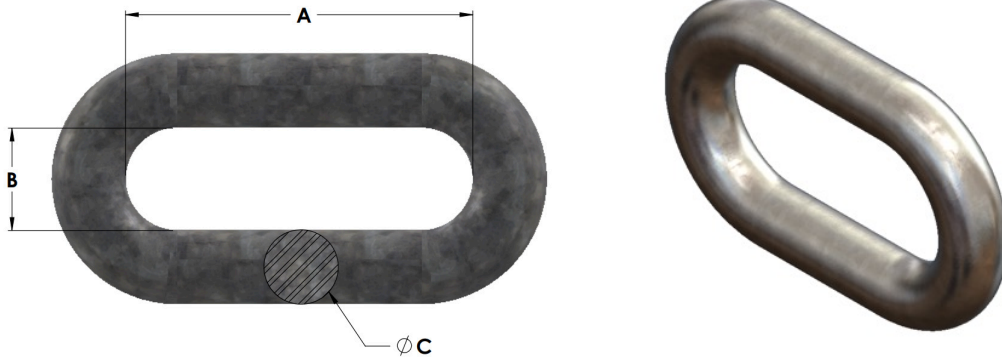
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



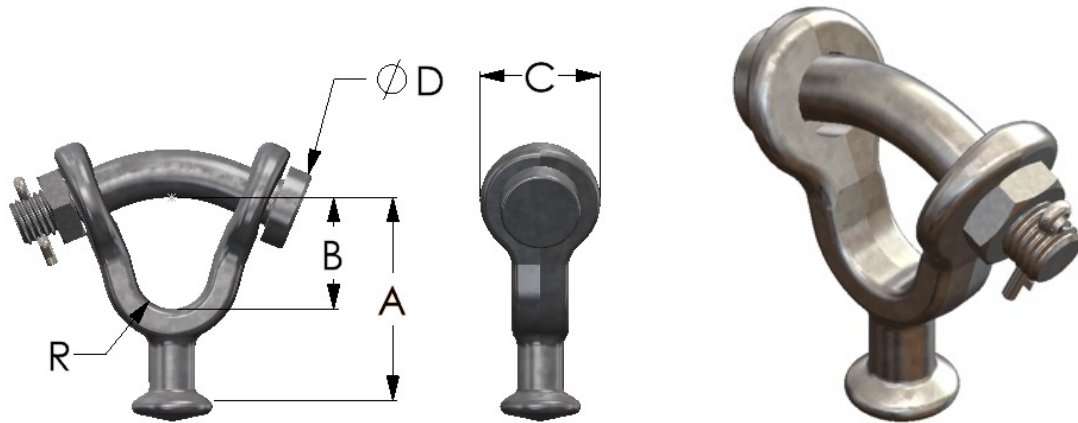
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	WEIGHT/100
CL-4	30,000 Lbs.	2.25"	1"	0.5"	40 Lbs.
CL-5	40,000 Lbs.	3.25"	1"	0.63"	92 Lbs.
CL-6	60,000 Lbs.	3.5"	1"	0.75"	145 Lbs.
CL-8	110,000 Lbs.	4"	1.25"	1"	294 Lbs.
CL-10	150,000 Lbs.	7"	2.5"	1.25"	730 Lbs.

Material:

- Forged steel, hot-dipped galvanized

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	R	WEIGHT/100
YCB-65A	30,000 Lbs.	52-3 & 5	3.25"	1.75"	1.88"	0.75"	0.5"	174 Lbs.
YCB-78	50,000 Lbs.	52-8 & 11	3.81"	1.56"	2.13"	0.88"	0.63"	340 Lbs.

Materials:

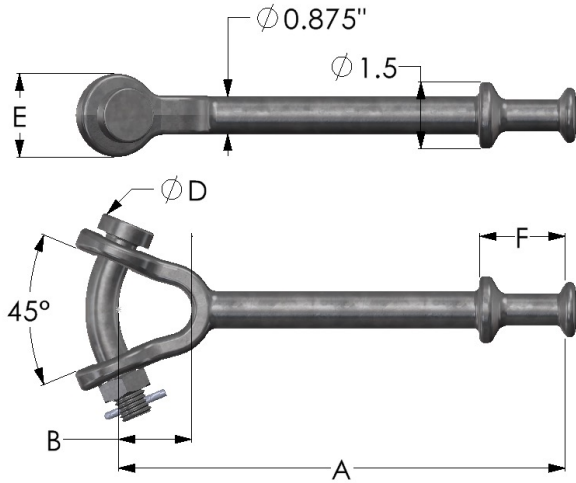
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For corona free, add suffix "-S" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	D	E	F	WEIGHT/100
YCBHL-65A	30,000 Lbs.	52-3 & 5	10.13"	1.69"	6"	1.88"	1.75"	317 Lbs.
YCBHL-78	50,000 Lbs.	52-8 & 11	10.88"	1.75"	6"	2.19"	1.88"	460 Lbs.

Materials:

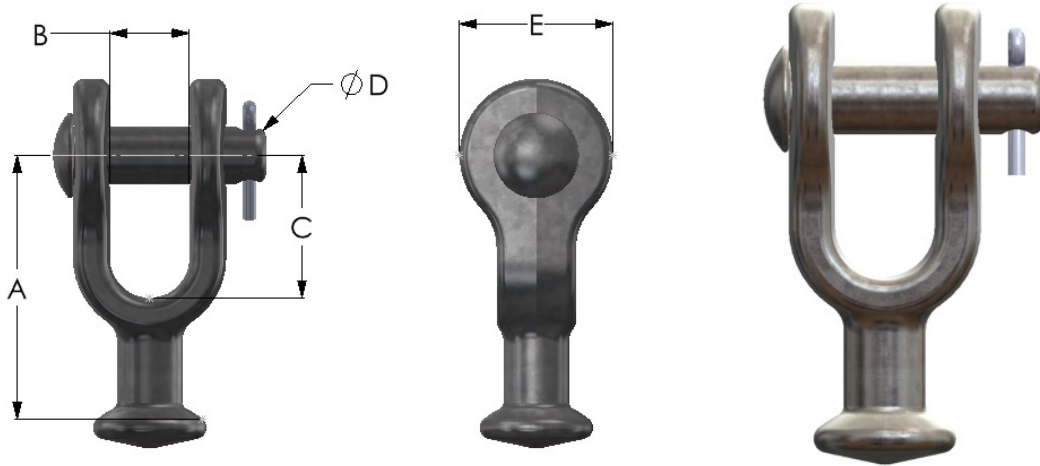
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For corona free, add suffix "-S" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	WEIGHT/100
CB-55-BC	30,000 Lbs.	52-3 & 5	2.94"	0.81"	1.56"	0.63"	1.69"	110 Lbs.
CB-55L-BC	30,000 Lbs.	52-3 & 5	3.94"	0.81"	2.5"	0.63"	1.69"	134 Lbs.
CB-78-BC	50,000 Lbs.	52-8 & 11	4.19"	1.13"	2"	0.88"	2"	216 Lbs.
CB-824-BC	66,000 Lbs.	IEC-24	4.75"	1.31"	2.38"	1"	2.25"	343 Lbs.
CB-928-BC	90,000 Lbs.	IEC-28	5.06"	1.56"	2.38"	1.13"	1.13"	563 Lbs.

Materials:

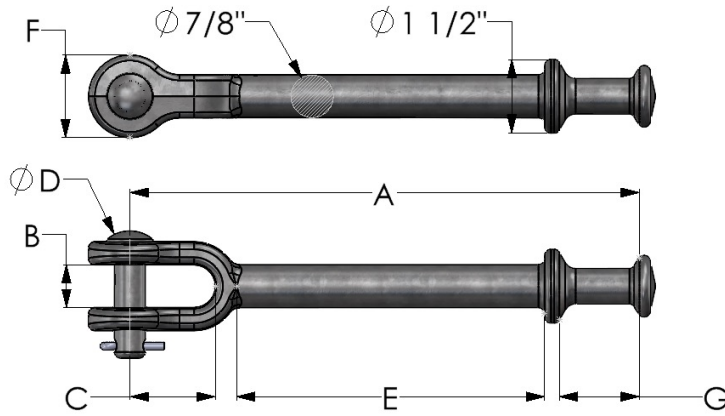
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	F	G	WEIGHT/100
CBHL-55A	30,000 Lbs.	52-3 & 5	10.5"	0.88"	1.75"	0.63"	6"	1.69"	1.75"	210 Lbs.
CBHL-78	50,000 Lbs.	52-8 & 11	10.94"	1.13"	2"	0.88"	6"	2"	1.75"	375 Lbs.

Materials:

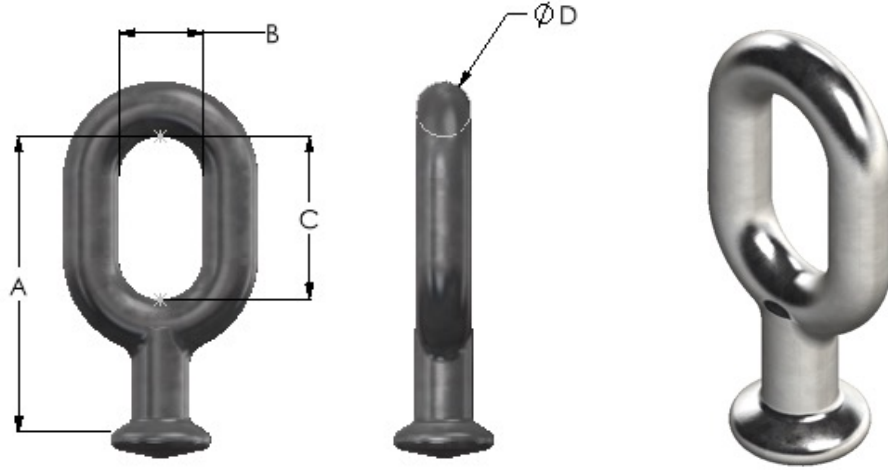
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



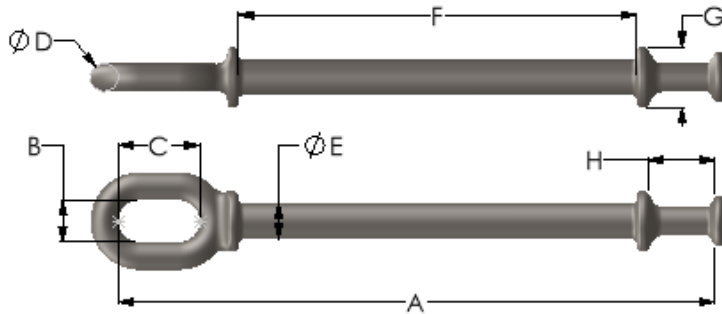
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	WEIGHT/100
OEB-55	35,000 Lbs.	52-3 & 5	3.75"	1"	2"	0.69"	110 Lbs.
OEB-68	50,000 Lbs.	52-8 & 11	4.68"	1.25"	2.5"	0.75"	170 Lbs.

Material:

- Body - forged steel, hot-dipped galvanized

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5



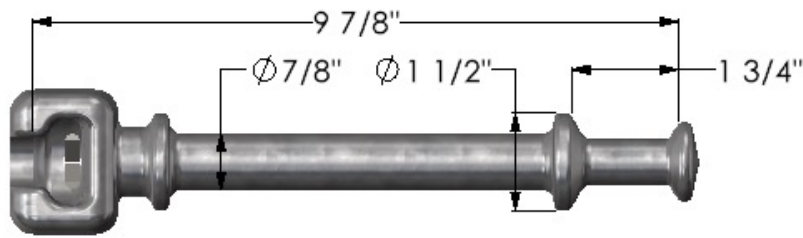
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	F	G	H	WEIGHT/100
OEBHL-55	35,000 Lbs.	52-3 & 5	11"	1"	2"	0.69"	0.88"	6"	1.5"	1.75"	256 Lbs.

Material:

- Body - forged steel, hot-dipped galvanized

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5



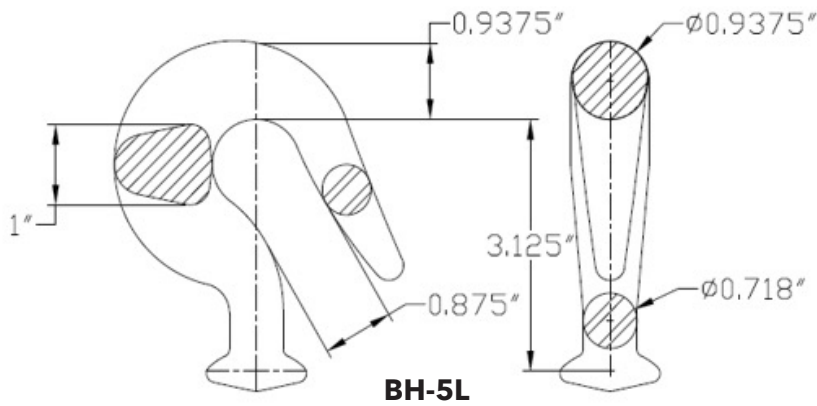
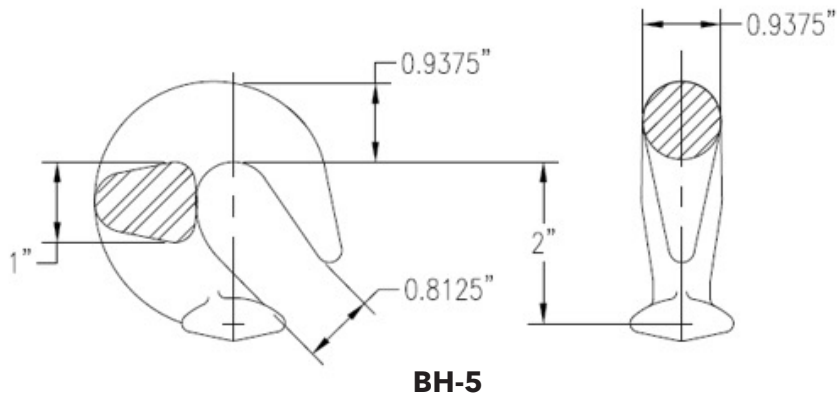
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	WEIGHT/100
HLSB-30-55	30,000 Lbs.	52-3 & 5	300 Lbs.

Material:

- Body - forged steel, hot-dipped galvanized
- Cotter key - stainless steel

Charpy Compliance:

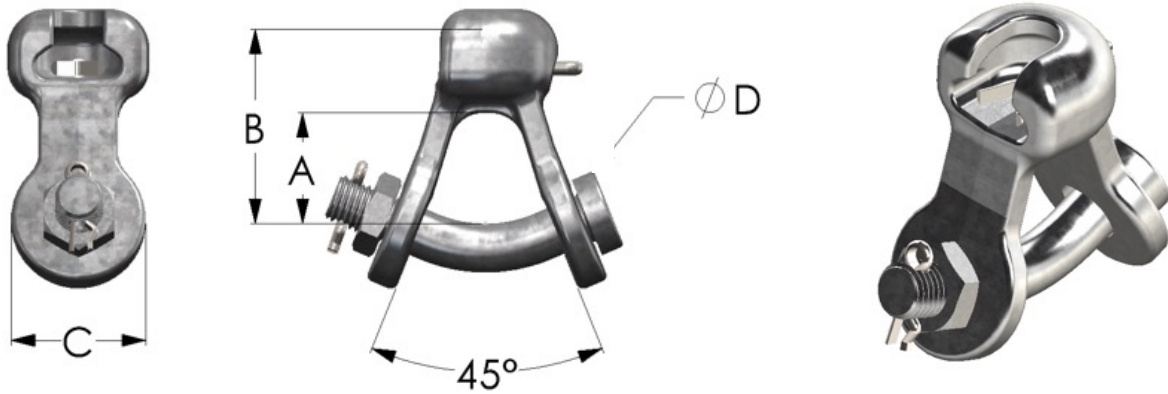
- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	WEIGHT/ 100
BH-5	30,000 Lbs.	52-3 & 5	108 Lbs.
BH-5L	30,000 Lbs.	52-3 & 5	125 Lbs.

Material:

- Body - forged steel, hot-dipped galvanized



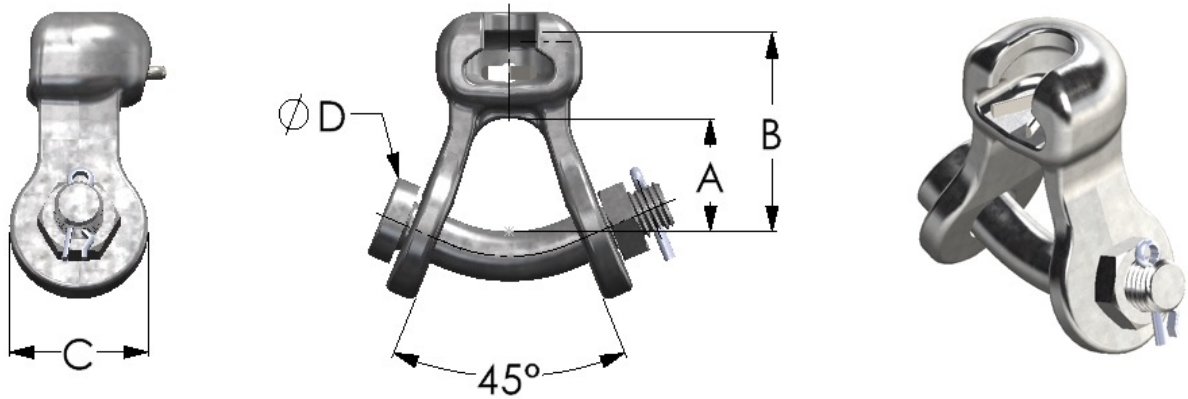
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	WEIGHT/100
SYC-56-BC	30,000 Lbs.	52-3 & 5	1.63"	2.75"	2.13"	0.75"	321 Lbs.
SYC-87-BC	50,000 Lbs.	52-8 & 11	1.88"	3"	2.5"	0.88"	385 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



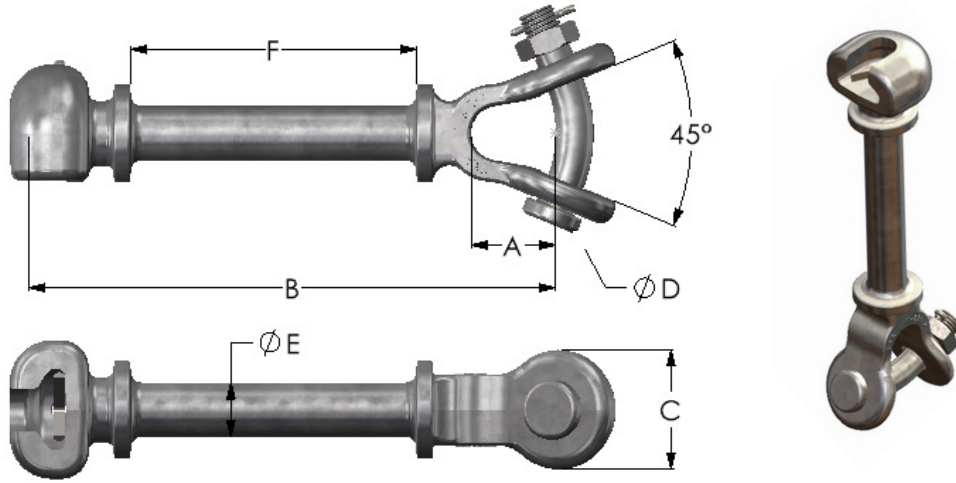
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	WEIGHT/100
SYCR-56-BC	30,000 Lbs.	52-3 & 5	1.63"	2.75"	2.13"	0.75"	290 Lbs.
SYCR-87-BC	50,000 Lbs.	52-8 & 11	1.88"	3"	2.5"	0.88"	385 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	F	WEIGHT/100
SYCHL-56A-BC	30,000 Lbs.	52-3 & 5	1.63"	10.75"	2.13"	0.75"	0.94"	6.19"	470 Lbs.
SYCHL-87-BC	50,000 Lbs.	52-8 & 11	2"	12"	2.75"	0.88"	1.25"	6.5"	725 Lbs.

Materials:

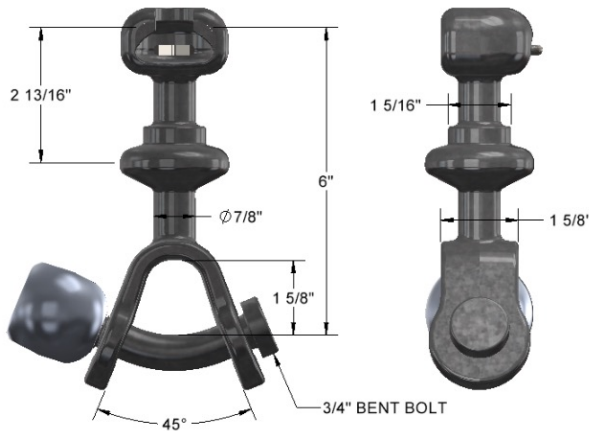
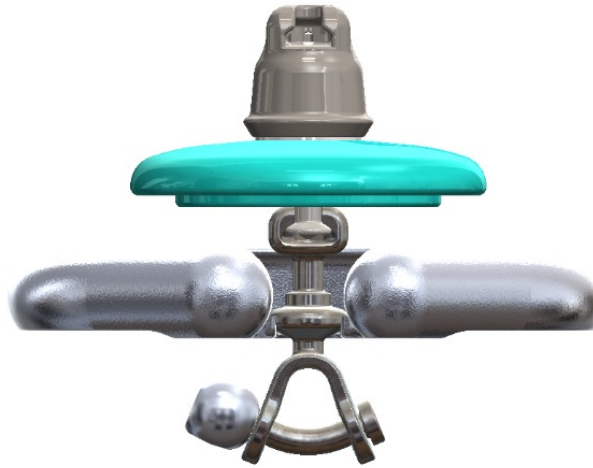
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

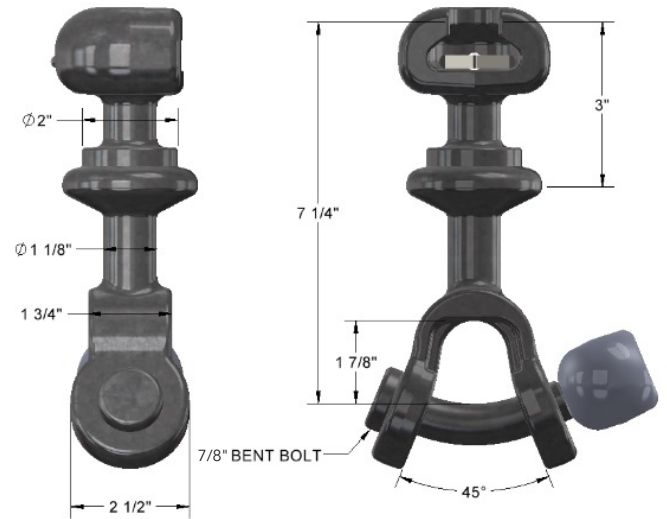
- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- For bolt, sphere nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



PART NUMBER: SYCRL-56-S



PART NUMBER: SYCRL-87-S

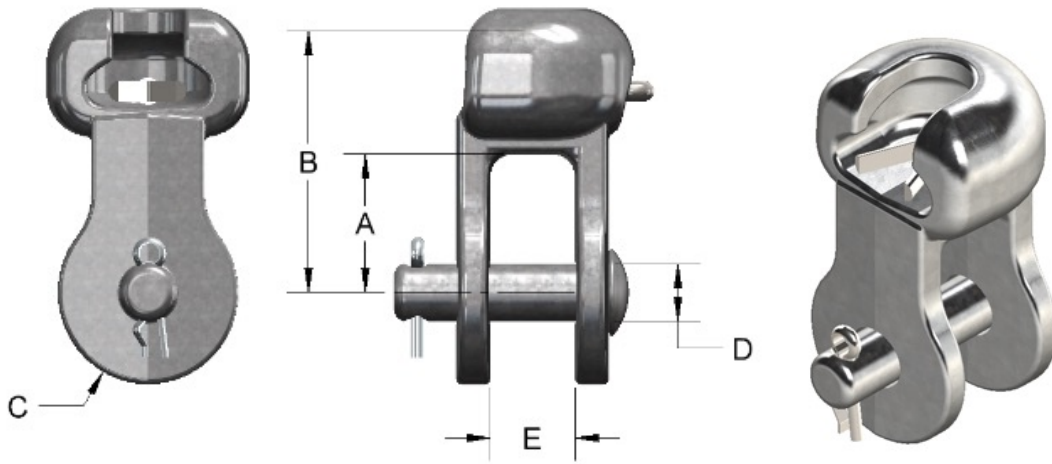
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	12" CORONA RING	17" CORONA RING
SYCRL-56-S	30,000 Lbs.	52-3 & 5	CR16/18-12	CR16/18-17
SYCRL-87-S	50,000 Lbs.	52-8 & 11	CR24/32-12	CR24/32-17

Materials:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Sphere nut - aluminum
- Cotter pin - stainless steel

Application Notes:

- Sphere nut included with SYCRL - corona free hardware
- SYCRL designed to fit smart fit corona rings
- For 345kV applications - use 12" corona ring
- For 500kV applications - use 17" corona ring
- Corona ring sold separately
- 17" corona ring only for SYCRL-87-S



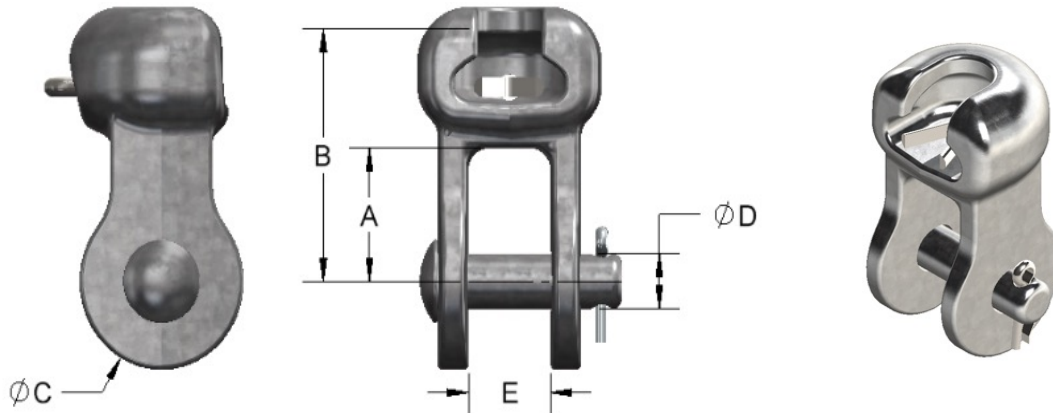
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	WEIGHT/100
SC-55-BC	30,000 Lbs.	52-3 & 5	1.5"	2.63"	2"	0.94"	0.94"	200 Lbs.
SC-86-BC	45,000 Lbs.	52-8	2"	3.25"	2.13"	0.75"	1.25"	240 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



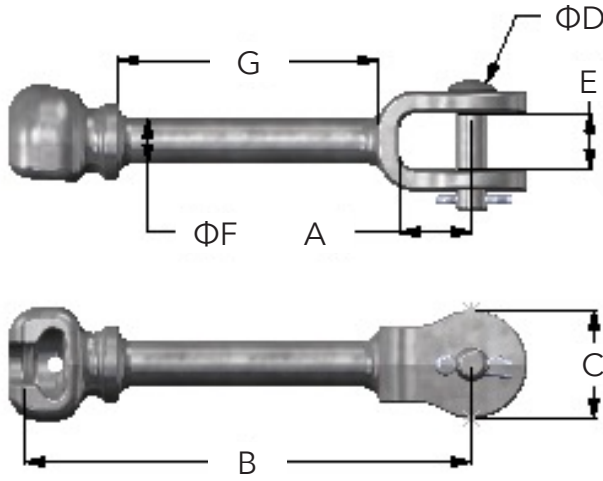
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	WEIGHT/100
SCR-55-BC	30,000 Lbs.	52-3 & 5	1.5"	2.63"	2"	0.63"	1"	197 Lbs.
SCR-86-BC	50,000 Lbs.	52-8 & 11	2.25"	4.5"	2"	0.88"	1.13"	460 Lbs.
SCR-824-BC	66,000 Lbs.	IEC-24	2.44"	4.38"	2.63"	1"	1.31"	760 Lbs.
SCR-928-BC	90,000 Lbs.	IEC-28	3.06"	5.75"	5.75"	1.13"	1.38"	1620 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



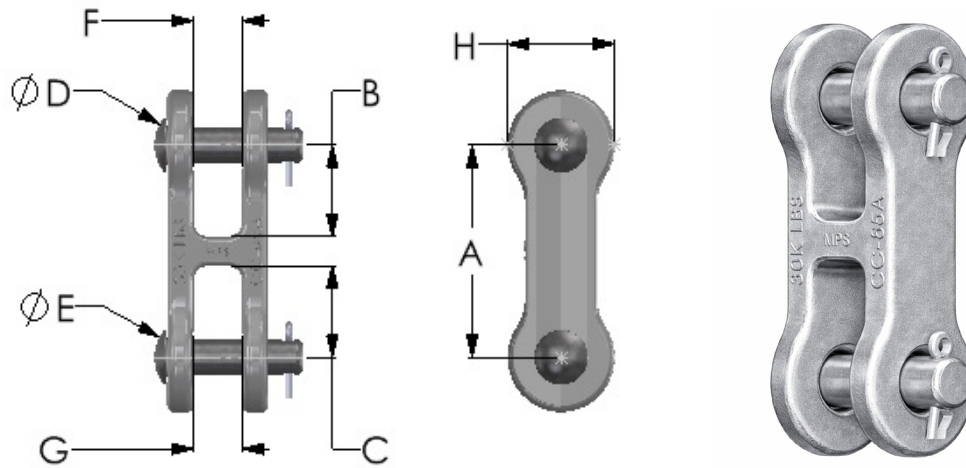
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	INSULATOR CLASS	A	B	C	D	E	F	G	WEIGHT/100
SCHL-55	30,000 Lbs.	52-3 & 5	1.38"	8.38"	2.13"	0.63"	1"	0.94"	5.19"	325 Lbs.
SCHL-55A	30,000 Lbs.	52-3 & 5	1.5"	10"	2"	0.63"	1.13"	0.94"	6.06"	345 Lbs.
SCHL-56A	30,000 Lbs.	52-3 & 5	1.5"	10"	2"	0.75"	1.13"	0.94"	6.06"	355 Lbs.
SCHL-86	40,000 Lbs.	52-8 & 11	1.75"	10.63"	2.13"	0.75"	1.13"	1.13"	5.75"	585 Lbs.
SCHL-87	50,000 Lbs.	52-8 & 11	2.25"	10.63"	2.25"	0.88"	1.13"	1.13"	*5.13"	595 Lbs.
SCHL-87A	50,000 Lbs.	52-8 & 11	2.25"	11.25"	2.25"	0.88"	1.13"	1.13"	*6"	610 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #
- * - hot line collar on socket



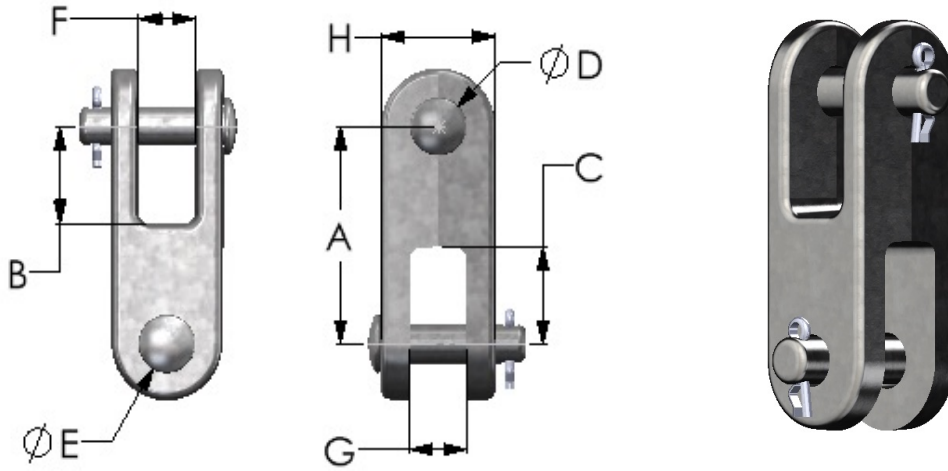
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
CC-55A	35,000 Lbs.	3.5"	1.56"	1.56"	0.63"	0.63"	0.81"	0.81"	1.88"	208 Lbs.
CC-66	40,000 Lbs.	4.5"	2"	2"	0.75"	0.75"	0.81"	0.81"	1.88"	400 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #



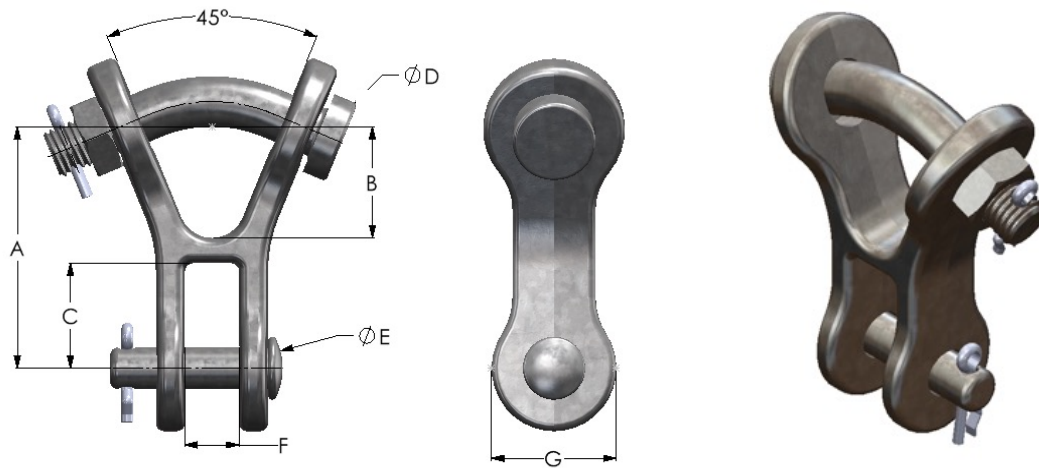
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
CCR-55	35,000 Lbs.	3.5"	1.56"	1.56"	0.63"	0.63"	0.94"	0.94"	1.88"	208 Lbs.
CCR-66A	45,000 Lbs.	5.25"	2.38"	2.38"	0.75"	0.75"	1.06"	1.06"	2.13"	460 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #



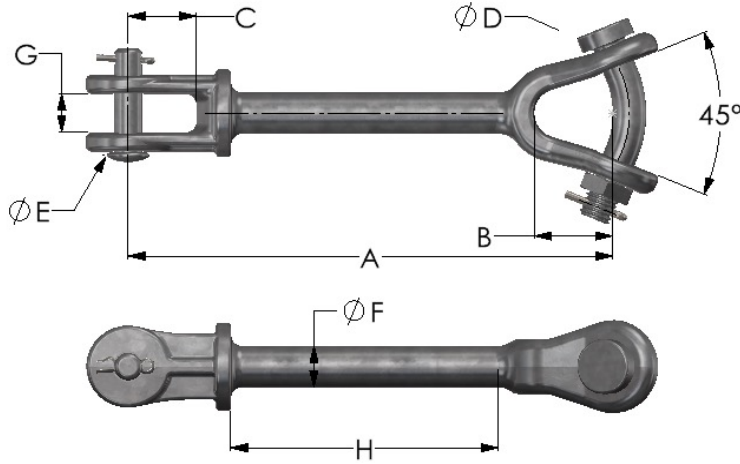
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	WEIGHT/100
YCC-65	30,000 Lbs.	3.63"	1.56"	1.56"	0.75"	0.63"	0.81"	1.88"	281 Lbs.
YCC-76	40,000 Lbs.	4.13"	1.75"	1.75"	0.88"	0.75"	0.94"	2"	554 Lbs.
YCC-77	50,000 Lbs.	4.13"	1.75"	1.75"	0.88"	0.88"	0.94"	2"	568 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #



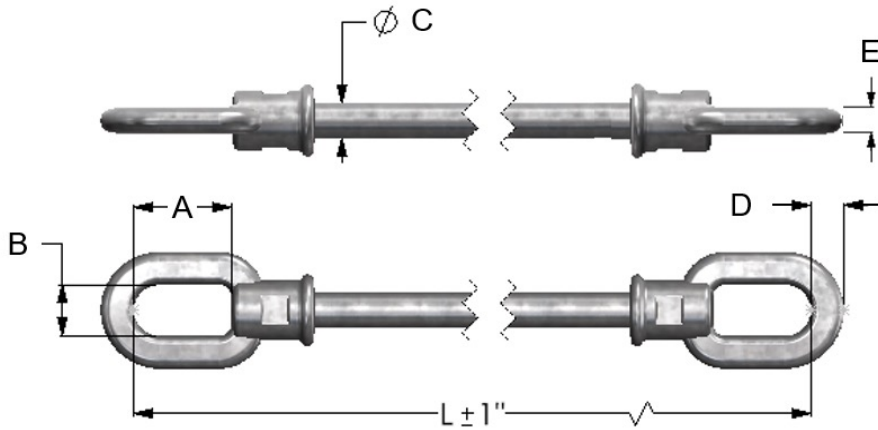
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
YCCHL-65	30,000 Lbs.	10.88"	1.75"	1.5"	0.75"	0.63"	0.81"	0.81"	5.88"	524 Lbs.
YCCHL-76A	40,000 Lbs.	11.75"	1.75"	1.25"	0.88"	0.75"	1.13"	0.81"	6"	650 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	L MIN.	L MAX.
LOO-36-L	36,000 Lbs.	2"	1.06"	0.75"	0.69"	0.56"	14"	144"
LOO-50-L	50,000 Lbs.	2.25"	1.25"	0.88"	0.88"	0.75"	14"	144"
LOO-80-L	80,000 Lbs.	2.63"	1.94"	1.13"	1"	0.88"	14"	144"

Material:

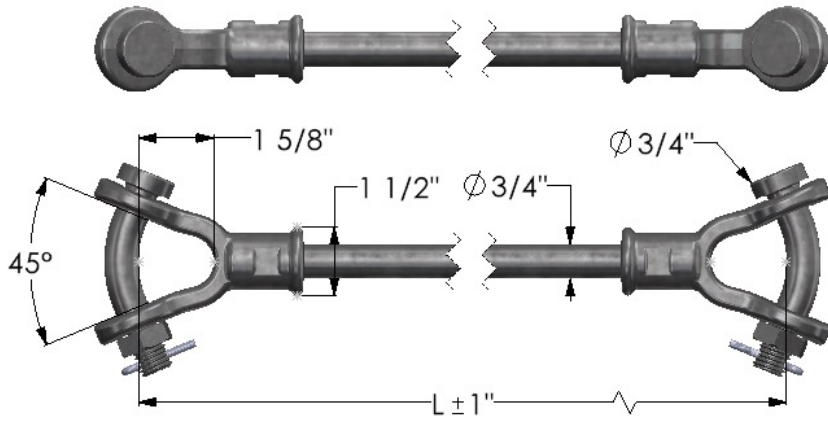
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Charpy Compliance:

- Add suffix "-CH1" for charpy level 1
- Add suffix "-CH15" for charpy level 1.5

Application Notes:

- LOO custom hot line - "L" = length in 1" increments (min. 14" / max. 144")
- For 90 deg. rotation, add suffix "-R" to catalog #



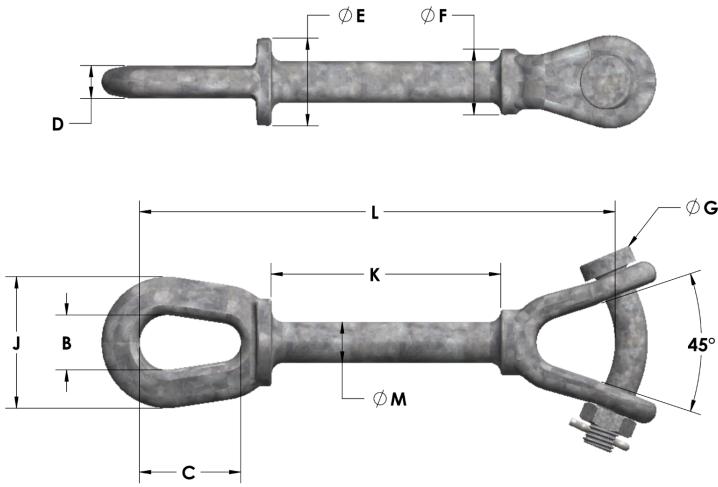
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	L MIN.	L MAX.
LYY-30-L	30,000 Lbs.	14"	144"

Materials:

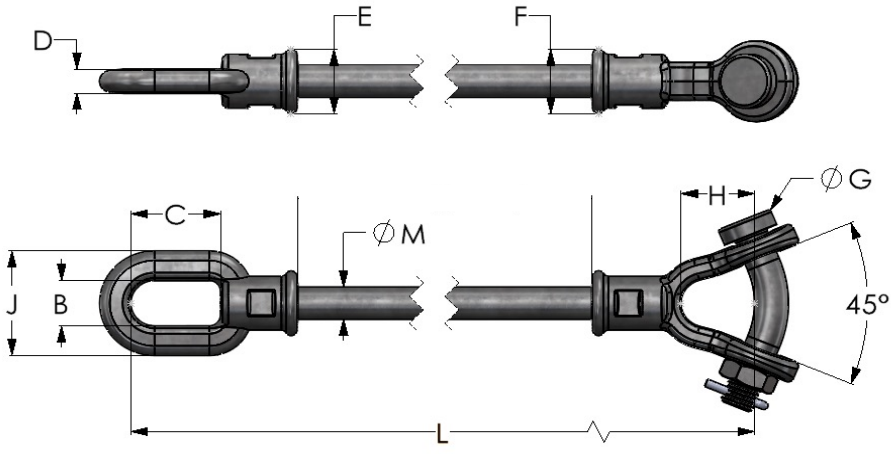
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- LYY custom hot line - "L" = length in 1" increments (min. 14" / max. 144")
- For 90 deg. rotation, add suffix "-R" to catalog #



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	L	B	C	D	E	F	G	J	K	M	WEIGHT/100
LOY-66-11	30,000 Lbs.	10.81"	1.25"	2.31"	0.75"	2"	1.5"	0.75"	3"	5.25"	0.94"	550 Lbs.
LOY-77-16	50,000 Lbs.	15.5"	1.31"	2.63"	0.88"	2.25"	2.25"	0.88"	3.31"	8.38"	1.25"	770 Lbs.

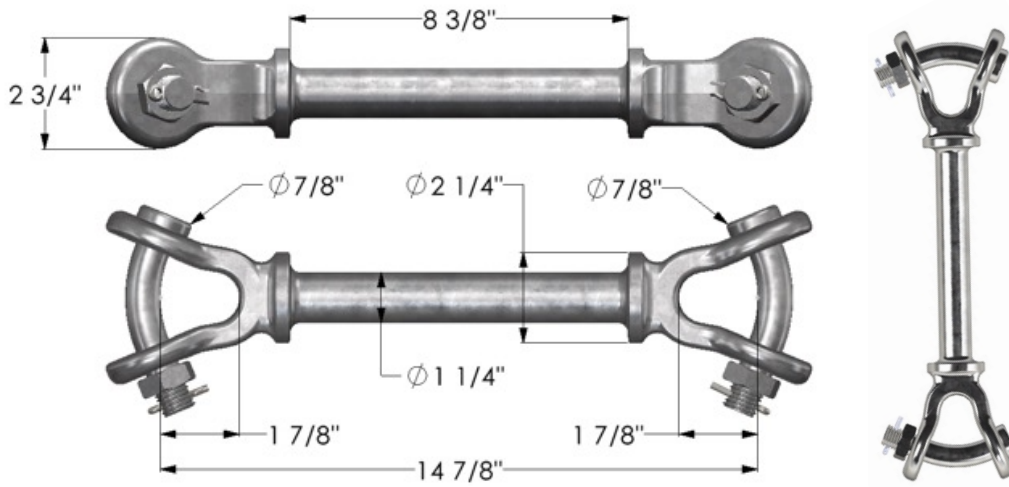


CATALOG NUMBER	MIN. ULTIMATE STRENGTH	L	B	C	D	E	F	G	H	J	M
LOY-30-L	30,000 Lbs.	14" - 144"	1.06"	2"	0.56"	1.5"	1.5"	0.75"	1.63"	2.44"	0.75"

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel





CATALOG NUMBER

MIN. ULTIMATE STRENGTH

WEIGHT/100

YCYCHL-77

50,000 Lbs.

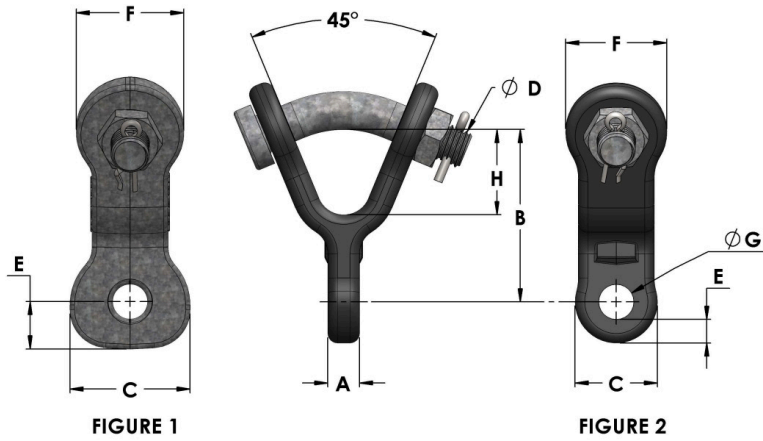
1078 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For corona free, add suffix "-S" to catalog #



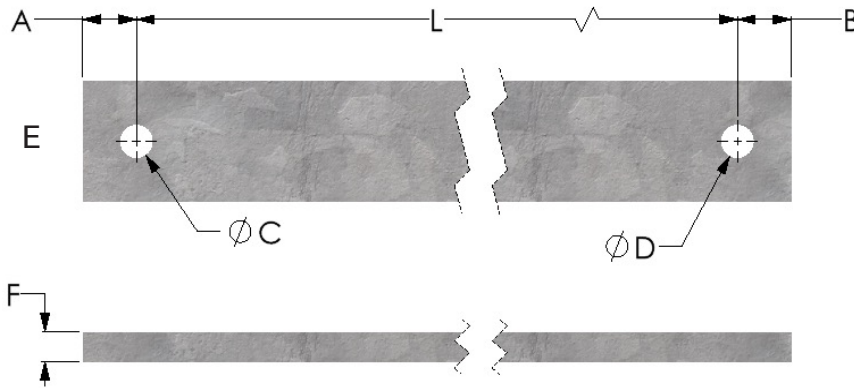
CATALOG NUMBER	FIG.	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
YCE-65-625	2	19,000 Lbs.	0.63"	3.5"	1.63"	0.75"	0.81"	2"	0.69"	1.75"	205 Lbs.
YCE-65-625A	1	30,000 Lbs.	0.63"	3.5"	3.38"	0.75"	0.94"	2.13"	0.69"	1.75"	220 Lbs.
YCE-66-750	1	30,000 Lbs.	0.75"	3.63"	2"	0.75"	1"	2.13"	0.81"	1.75"	240 Lbs.
YCE-65-2187	1	30,000 Lbs.	2.19"	3.63"	2"	0.75"	0.81"	2"	0.69"	1.75"	318 Lbs.

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter, add suffix "-BC" to catalog #
- For corona free, add suffix "-S" to catalog #



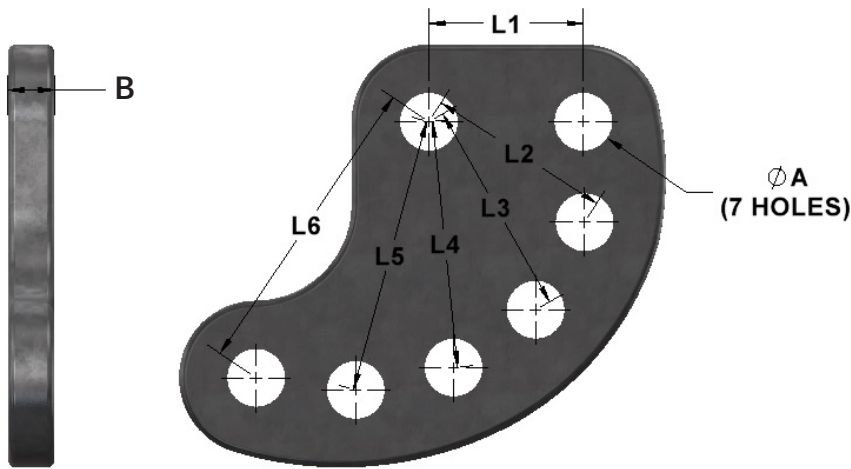
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	L MIN.
EL3055L	30,000 Lbs.	1.13"	1.13"	0.69"	0.69"	2.5"	0.63	4"
EL4066L	40,000 Lbs.	1.38"	1.38"	0.81"	0.81"	2.5"	0.75"	4"
EL5076L	50,000 Lbs.	1.75"	1.75"	0.94"	0.94"	3"	0.75"	6"
EL5077L	50,000 Lbs.	1.63"	1.63"	0.94"	0.94"	3"	0.75"	6"
EL6066L	60,000 Lbs.	1.75"	1.75"	0.81"	0.81"	3"	0.75"	6"
EL6067L	60,000 Lbs.	1.75"	1.75"	0.81"	0.94"	3"	0.75"	6"
EL6068L	60,000 Lbs.	1.75"	1.75"	0.81"	1.06"	3"	0.75"	6"
EL8088L	80,000 Lbs.	1.75"	1.75"	1.06"	1.06"	3.5"	1"	6"
EL1000909L	100,000 Lbs.	1.5"	1.5"	1.25"	1.25"	3"	1.25"	6"
EL1501111L	150,000 Lbs.	2.5"	2.5"	1.5"	1.5"	4"	1.25"	8"

Material:

- Body - steel, hot-dipped galvanized

Application Notes:

- To specify catalog number, replace "L" with required length in 1" increments



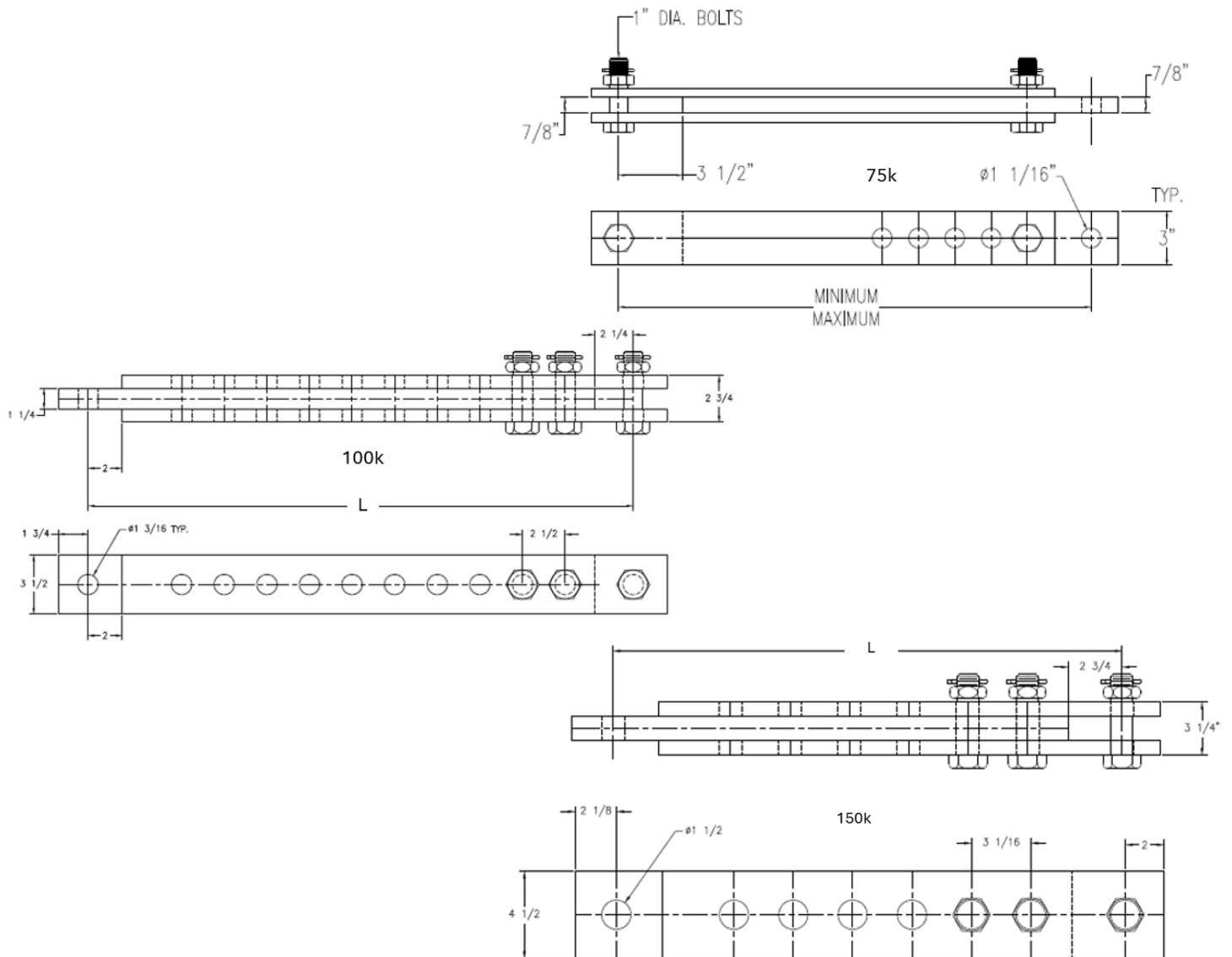
CATALOG NUMBER	MIN. ULTIMATE STRENGTH	A	L1	L2	L3	L4	L5	L6	B	SHACKLES
ASM-6212-1	50,000 Lbs.	0.94"	2.5"	3"	3.5"	4"	4.5"	5"	0.75"	ASH-66-BC ASH-67-BC
ASM-6212-2	40,000 Lbs.	0.81"	2.5"	3"	3.5"	4"	4.5"	5"	0.75"	ASH-45-BC ASH-66-BC
ASM-6212-7	50,000 Lbs.	0.94"	4.5"	5.5"	6.5"	7.5"	8.5"	-	0.75"	ASH-66-BC ASH-67-BC
ASM-8016-1	80,000 Lbs.	1.06"	3.13"	4.13"	5.13"	6.13"	7.13"	8.13"	1"	ASH-77-BC ASH-78-BC

Material:

- Body - steel, hot-dipped galvanized

Application Notes:

- Use with ASH series anchor shackles
- Anchor shackles shown are not included



CATALOG NUMBER	MIN. ULTIMATE STRENGTH	L MIN.	L MAX.
ASM-8007-2	75,000 Lbs.	37.5"	61.5"
ASM-8007-3	75,000 Lbs.	20.5"	27"

CATALOG NUMBER	MIN. ULTIMATE STRENGTH	L MIN.	L MAX.
ASM-8280-1	100,000 Lbs.	32"	52"
ASM-8280-2	150,000 Lbs.	28.25"	38.5"

Materials:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

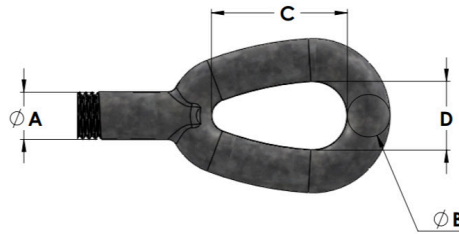
Application Notes:

- MPS adjustable straps are adjustable in 1/2" increments from the minimum to the maximum length





G-226 SERIES
EYE & EYE



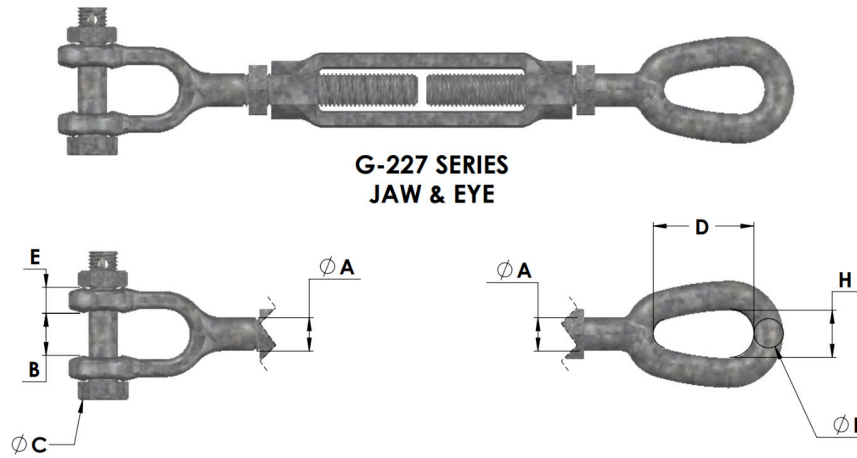
CATALOG NUMBER	THREAD DIA. & TAKE UP (IN)	MIN. ULTIMATE STRENGTH	A	B	C	D	OPEN LENGTH	CLOSED LENGTH	WEIGHT/100
G-226-N-34X6	0.75 x 6	26,000 Lbs.	0.75"	0.63"	2.13"	1"	23"	17"	398 Lbs.
G-226-N-34X9	0.75 x 9	26,000 Lbs.	0.75"	0.63"	2.13"	1"	29"	20"	513 Lbs.
G-226-N-34X12	0.75 x 12	26,000 Lbs.	0.75"	0.63"	2.13"	1"	35"	23"	587 Lbs.
G-226-N-34X18	0.75 x 18	26,000 Lbs.	0.75"	0.63"	2.13"	1"	47"	29"	666 Lbs.
G-226-N-78X12	0.875 x 12	36,000 Lbs.	0.88"	0.88"	2.38"	1.25"	36.63"	24.63"	788 Lbs.
G-226-N-78X18	0.875 x 18	36,000 Lbs.	0.88"	0.88"	2.38"	1.25"	48.63"	30.63"	1212 Lbs.
G-226-N-1X6	1 x 6	50,000 Lbs.	1"	0.88"	3"	1.44"	26.63"	20.63"	805 Lbs.
G-226-N-1X12	1 x 12	50,000 Lbs.	1"	0.88"	3"	1.44"	38.63"	26.63"	1078 Lbs.
G-226-N-1X18	1 x 18	50,000 Lbs.	1"	0.88"	3"	1.44"	50.63"	32.63"	1386 Lbs.
G-226-N-125X12	1.25 x 12	76,000 Lbs.	1.25"	1.13"	3.56"	1.81"	41.88"	29.88"	1900 Lbs.
G226-N-15X18	1.5 x 18	107,000 Lbs.	1.5"	1.25"	4.13"	2.13"	56.38"	38.38"	2000 Lbs.

Material:

- Body - steel, hot-dipped galvanized

Application Notes:

- Turnbuckle supplied with locking nuts
- Turnbuckles are recommended for straight in-line pull only



G-227 SERIES
JAW & EYE

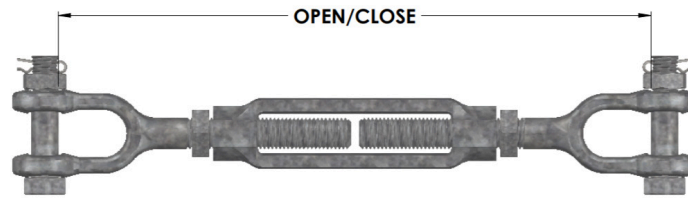
CATALOG NUMBER	THREAD DIA. & TAKE UP (IN)	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	H	OPEN LENGTH	CLOSED LENGTH	WEIGHT/100
G-227-NBC-34X6	0.75 x 6	26,000 Lbs.	0.75"	0.94"	0.63"	2.13"	0.5"	0.63"	1"	23"	17"	403 Lbs.
G-227-NBC-34X9	0.75 x 9	26,000 Lbs.	0.75"	0.94"	0.63"	2.13"	0.5"	0.63"	1"	29"	20"	523 Lbs.
G-227-NBC-34X12	0.75 x 12	26,000 Lbs.	0.75"	0.94"	0.63"	2.13"	0.5"	0.63"	1"	35"	23"	603 Lbs.
G-227-NBC-34X18	0.75 x 18	26,000 Lbs.	0.75"	0.94"	0.63"	2.13"	0.5"	0.63"	1"	47"	29"	702 Lbs.
G-227-NBC-78X6	0.875 x 6	36,000 Lbs.	0.88"	1.13"	0.75"	2.38"	0.56"	0.75"	1.25"	23.63"	17.63"	655 Lbs.
G-227-NBC-78X12	0.875 x 12	36,000 Lbs.	0.88"	1.13"	0.75"	2.38"	0.56"	0.75"	1.25"	36.63"	24.63"	843 Lbs.
G-227-NBC-78X18	0.875 x 18	36,000 Lbs.	0.88"	1.13"	0.75"	2.38"	0.56"	0.75"	1.25"	48.63"	30.63"	1252 Lbs.
G-227-NBC-1X6	1 x 6	50,000 Lbs.	1"	1.19"	0.88"	3"	0.69"	0.88"	1.44"	26.63"	20.63"	872 Lbs.
G-227-NBC-1X12	1 x 12	50,000 Lbs.	1"	1.19"	0.88"	3"	0.69"	0.88"	1.44"	38.63"	26.63"	1138 Lbs.
G-227-NBC-1X18	1 x 18	50,000 Lbs.	1"	1.19"	0.88"	3"	0.69"	0.88"	1.44"	50.63"	32.63"	1463 Lbs.

Material:

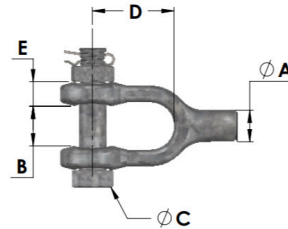
- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- Turnbuckle supplied with locking nuts
- Jaw turnbuckle fitting supplied with bolt, nut, cotter
- Turnbuckles are recommended for straight in-line pull only



G-228 SERIES
JAW & JAW



CATALOG NUMBER	THREAD DIA. & TAKE UP (IN)	MIN. ULTIMATE STRENGTH	A	B	C	D	E	OPEN LENGTH	CLOSED LENGTH	WEIGHT/100
G-228-NBC-34X6	0.75 x 6	26,000 Lbs.	0.75"	0.94"	0.63"	1.81"	0.56"	23"	17"	418 Lbs.
G-228-NBC-34X9	0.75 x 9	26,000 Lbs.	0.75"	0.94"	0.63"	1.81"	0.56"	29"	20"	545 Lbs.
G-228-NBC-34X12	0.75 x 12	26,000 Lbs.	0.75"	0.94"	0.63"	1.81"	0.56"	35"	23"	620 Lbs.
G-228-NBC-34X18	0.75 x 18	26,000 Lbs.	0.75"	0.94"	0.63"	1.81"	0.56"	47"	29"	753 Lbs.
G-228-NBC-78X12	0.875 x 12	36,000 Lbs.	0.88"	1.13"	0.75"	1.97"	0.68"	36.63"	24.63"	863 Lbs.
G-228-NBC-78X18	0.875 x 18	36,000 Lbs.	0.88"	1.13"	0.75"	1.97"	0.68"	48.63"	30.63"	1281 Lbs.
G-228-NBC-1X6	1 x 6	50,000 Lbs.	1"	1.19"	0.88"	2.41"	0.78"	26.63"	20.63"	911 Lbs.
G-228-NBC-1X12	1 x 12	50,000 Lbs.	1"	1.19"	0.88"	2.41"	0.78"	38.63"	26.63"	1165 Lbs.
G-228-NBC-1X18	1 x 18	50,000 Lbs.	1"	1.19"	0.88"	2.41"	0.78"	50.63"	32.63"	1518 Lbs.

Material:

- Body - forged steel, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- Turnbuckle supplied with locking nuts
- Jaw turnbuckle fitting supplied with bolt, nut, cotter
- Turnbuckles are recommended for straight in-line pull only

UCB TENSILE STRENGTH	XX POLE DIAMETER (IN)	XX EYE LINKS
-------------------------	--------------------------	-----------------

UCB TENSILE STRENGTH

UCB - 15,000 Lbs.
UCB30 - 30,000 Lbs.

XX POLE DIAMETER (IN)

Specify Pole OD (Min 8")

XX EYE LINKS

E - Includes 1 Eye
2E - Includes 2 Eyes
3E - Includes 3 Eyes
4E - Includes 4 Eyes

Link Style Pole Bands:

Link style pole bands provide an ideal product for guying and deadending to steel, wood or concrete poles (non-square) without the need for bolt holes in the pole. The bands will accommodate pole diameters from a minimum of 8" through a virtually unlimited pole diameter.

Features:

- Available at 15,000 lbs. and 30,000 lbs. tensile strength rating
- Supplied with up to 4 links with connecting eye used for terminating points to deadend and guy
- One "CLP" clip included - allows a 4" take up adjustment of band assembly
- Additional CLP can be ordered for added adjustment
- Full and half links are available to order for added adjustment

Material:

- Links - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter key - stainless steel

Application Notes:

- For use on wood, steel, and concrete poles
- No drilling of pole needed





FIGURE 1

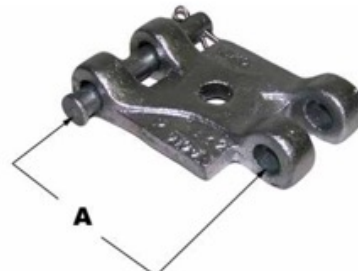


FIGURE 2

CATALOG NUMBER	FIG	TENSILE STRENGTH RATING	A	WEIGHT/100
P-1/2	1	15,000 Lbs.	1.69"	100 Lbs.
P-1/2-30	1	30,000 Lbs.	2.19"	200 Lbs.
P	2	15,000 Lbs.	3.44"	150 Lbs.
P-30	2	30,000 Lbs.	3.44"	300 Lbs.

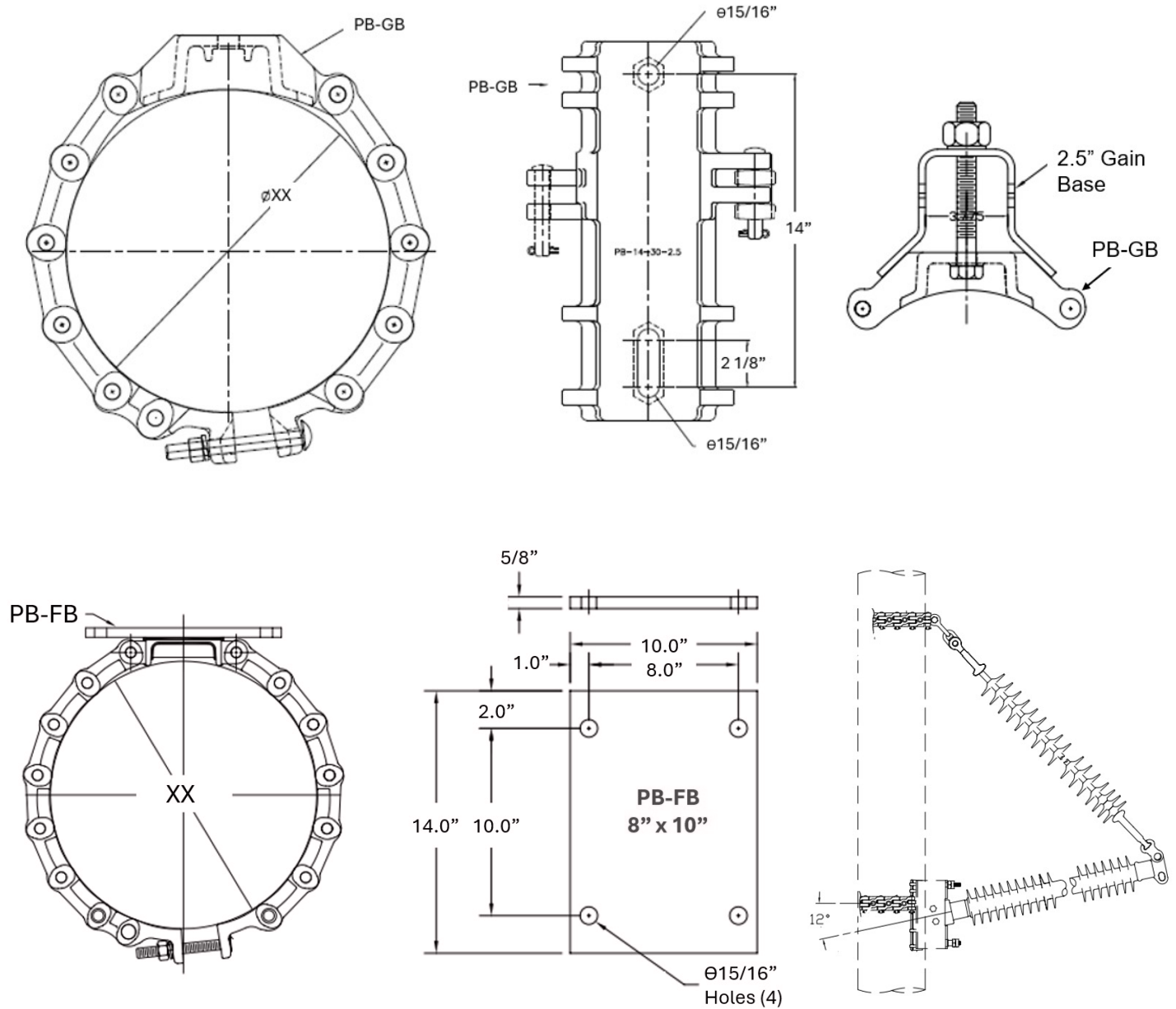


4" Maximum Adjustment

CATALOG NUMBER	TENSILE STRENGTH RATING	WEIGHT/100
CLP-2	15,000 Lbs.	500 Lbs.
CLP30-2	30,000 Lbs.	1000 Lbs.



CATALOG NUMBER	TENSILE STRENGTH RATING	EYE HOLE DIAMETER	WEIGHT/100
PEL-15	15,000 Lbs.	0.94"	230 Lbs.
PEL-30	30,000 Lbs.	0.94"	400 Lbs.



Material:

- PB - GB: ductile iron, hot-dipped galvanized
- PB - FB: steel, hot-dipped galvanized
- Hardware: steel, hot-dipped galvanized
- Cotter key: stainless steel

Y	2	TT	030	D	18	00
YOKE PLATE SERIES	NO. OF CONDUCTORS	YOKE PLATE TYPE	ULTIMATE STRENGTH	YOKE PLATE MATERIAL	HOLE SPACING	YOKE PLATE SERIES

Y YOKE PLATE SERIES

Y

2 NO. OF CONDUCTORS

1
2
3
4
6

TT YOKE PLATE TYPE

TT - Tangent Triangular
DT - DE Triangular
DR - DE Rectangular
DE - DE 3 Bundle
VS - V-String
DV - Double Leg V-String
RA - Angle I-String
RV - Angle V-String
RB - Angle V/4 String
RD - Angle V/3 String
JS - Jumper Suspension

030 ULTIMATE STRENGTH

30k
40k
50k
60k
80k
100k
120k
150k

D YOKE PLATE MATERIAL

D - Ductile Iron
S - Steel

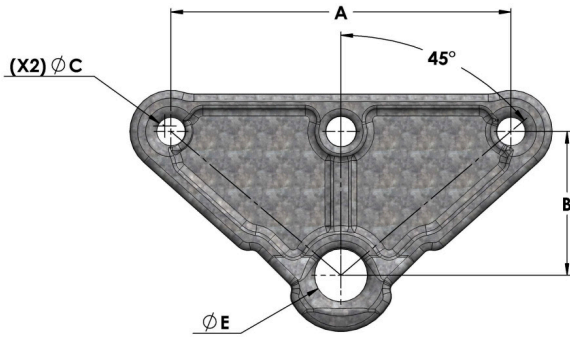
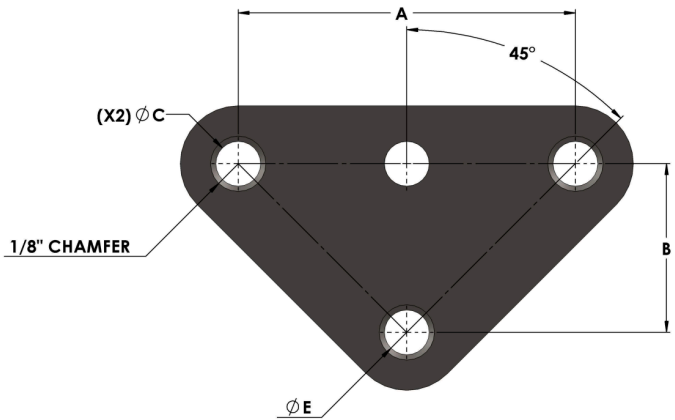
18 HOLE SPACING

13"
18"
24"

00 YOKE PLATE SERIES

00 - Standard
45 - Leg Angle
50 - Leg Angle

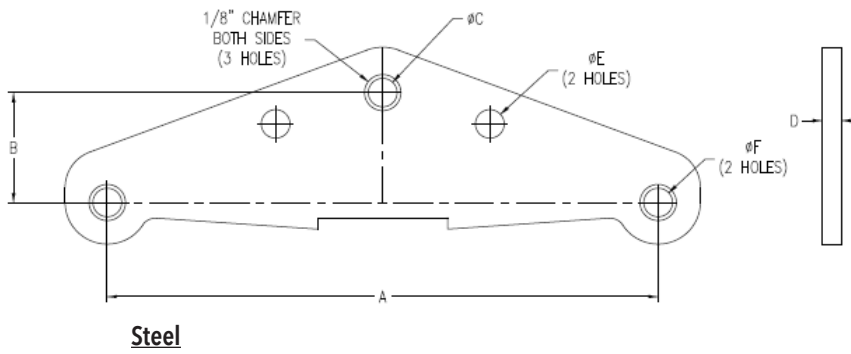
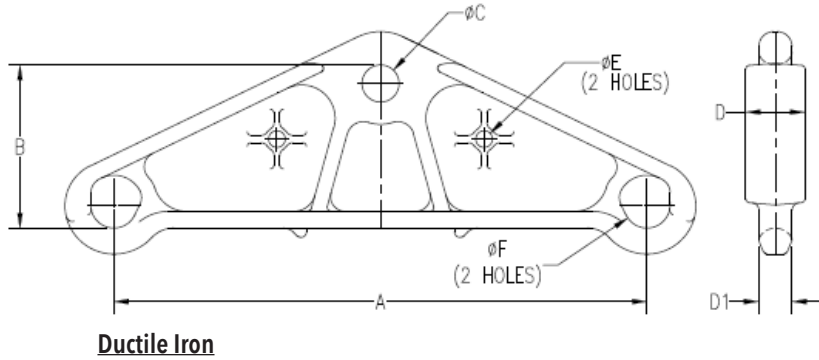




CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	D1	E
Y1VS030S	Steel	30,000 Lbs.	8"	4"	0.94"	0.63"	-	0.94"
Y1VS050D	Ductile Iron	50,000 Lbs.	11.31"	4.75"	0.94"	0.75"	1.13"	1.75"
Y1VS050S	Steel	50,000 Lbs.	8"	4"	1.06"	0.75"	-	1.06"

Application Notes:

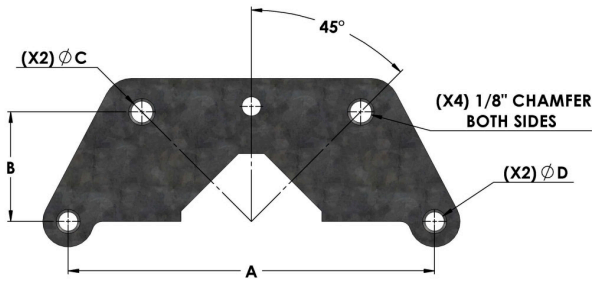
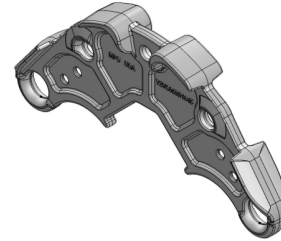
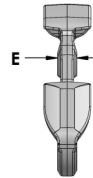
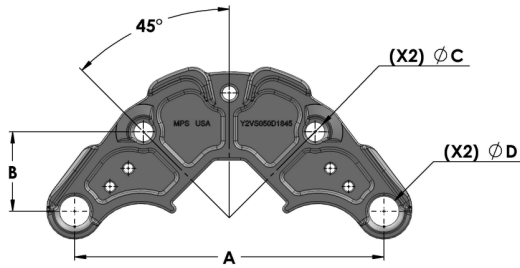
- Both ductile iron and steel yoke plates are hot-dipped galvanized



CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	D1	E	F
Y2TT040D1800	Ductile Iron	40,000 Lbs.	18"	5.5"	1.25"	2"	1.13"	0.56"	1.5"
Y2TT050S1800	Steel	50,000 Lbs.	18"	3.63"	1.06"	0.75"	-	1.25"	1.06"

Application Notes:

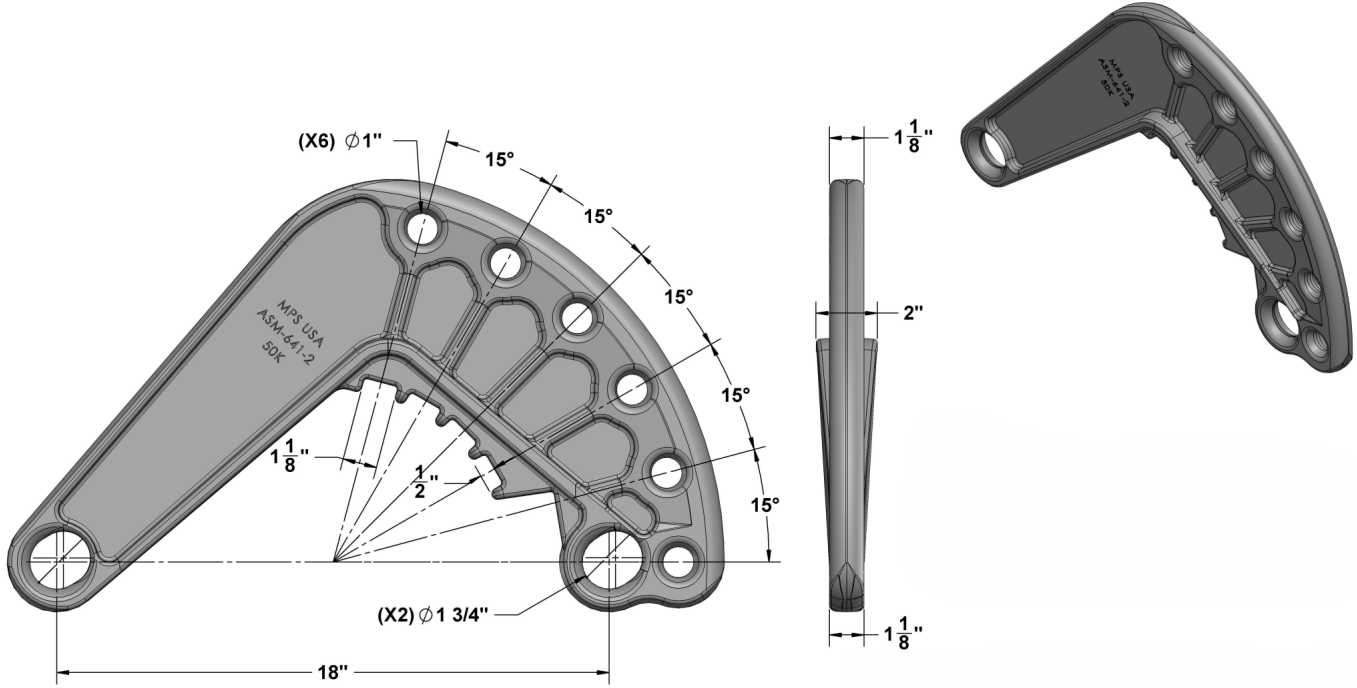
- Both ductile iron and steel yoke plates are hot-dipped galvanized



CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	E
Y2VS030S1845	Steel	30,000 Lbs.	18"	5.38"	1.06"	0.94"	0.63"
Y2VS050D1845	Ductile Iron	50,000 Lbs.	18"	4.62"	1.13"	1.75"	1.13"
Y2VS050S1845	Steel	50,000 Lbs.	18"	5.38"	1.06"	0.94"	0.75"

Application Notes:

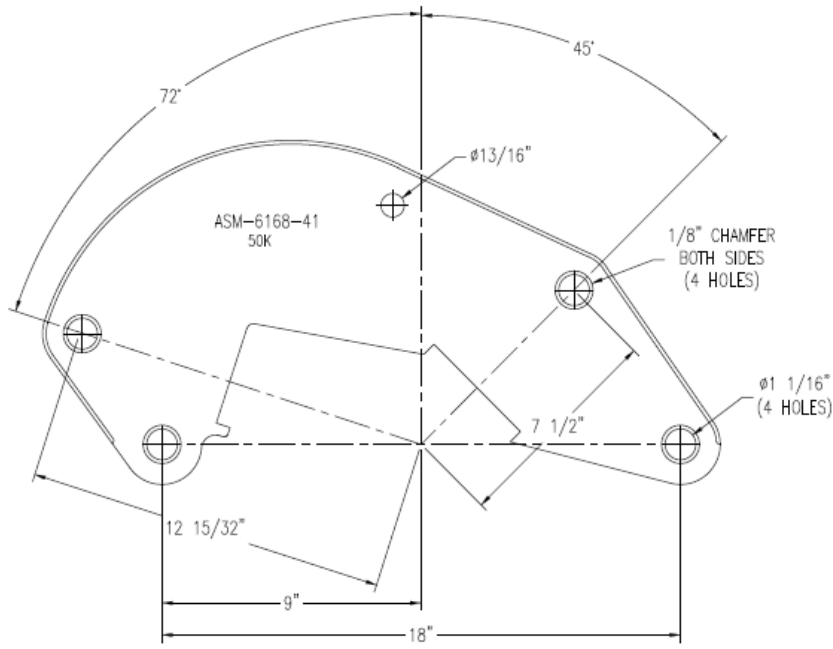
- Both ductile iron and steel yoke plates are hot-dipped galvanized



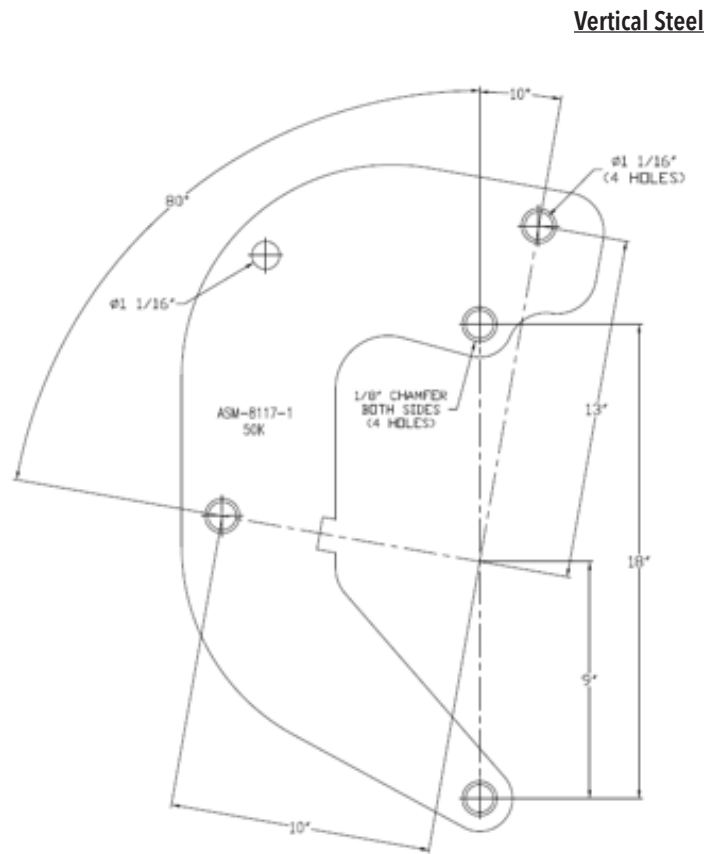
CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH
ASM-641-2	Ductile Iron	50,000 Lbs.

Application Notes:

- Ductile iron, hot-dipped galvanized



Horizontal Steel



Vertical Steel

CATALOG NUMBER		MATERIAL	MIN. ULTIMATE STRENGTH	THICKNESS
ASM-6168-41	Horizontal	Steel	50,000 Lbs.	0.75"
ASM-8117-1	Vertical	Steel	50,000 Lbs.	0.75"

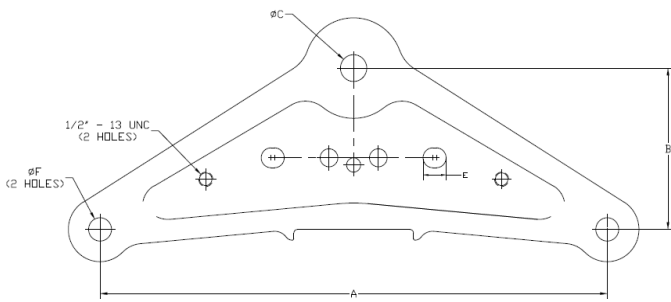
Application Notes:

- Steel yoke plates are hot-dipped galvanized

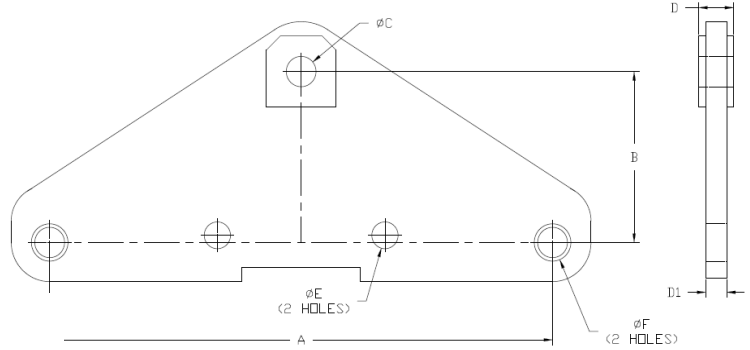


TRANSMISSION CONNECTION HARDWARE DOUBLE CONDUCTOR - YOKE PLATE

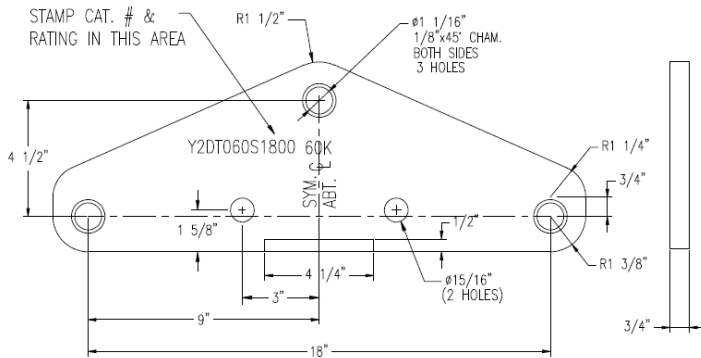
DT - Deadend Triangular Yoke Plate



Ductile Iron



Steel - 80k & 100k



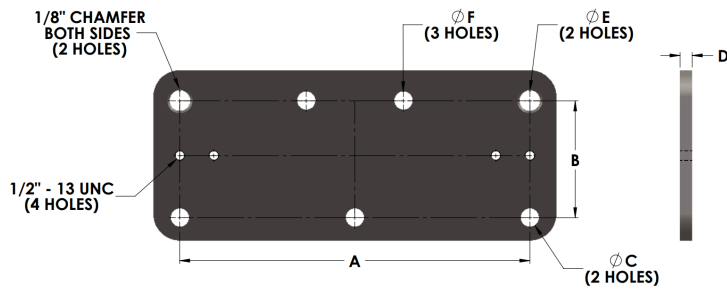
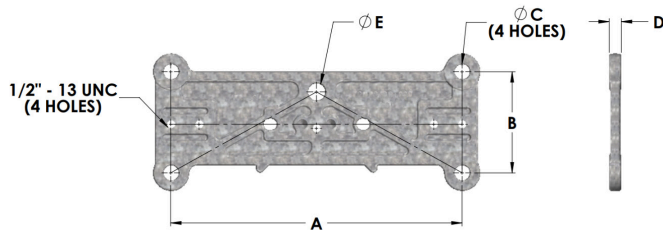
Steel - 60k

CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	D1	E	F
Y2DT060D1800	Ductile Iron	60,000 Lbs.	18"	5.63"	0.94"	1"	0.75"	0.19"	0.19"
Y2DT060S1800	Steel	60,000 Lbs.	18"	4.5"	1.06"	-	0.75"	0.94"	1.06"
Y2DT080S1800	Steel	80,000 Lbs.	18"	6"	1.06"	1.25"	0.75"	0.94"	1.06"
Y2DT100S1800	Steel	100,000 Lbs.	18"	6"	1.38"	1.5"	1"	0.94"	1.06"

Application Notes:

- Both ductile iron and steel yoke plates are hot-dipped galvanized
- For yokes with corona ring mounting provision, contact transmission@macleanpower.com

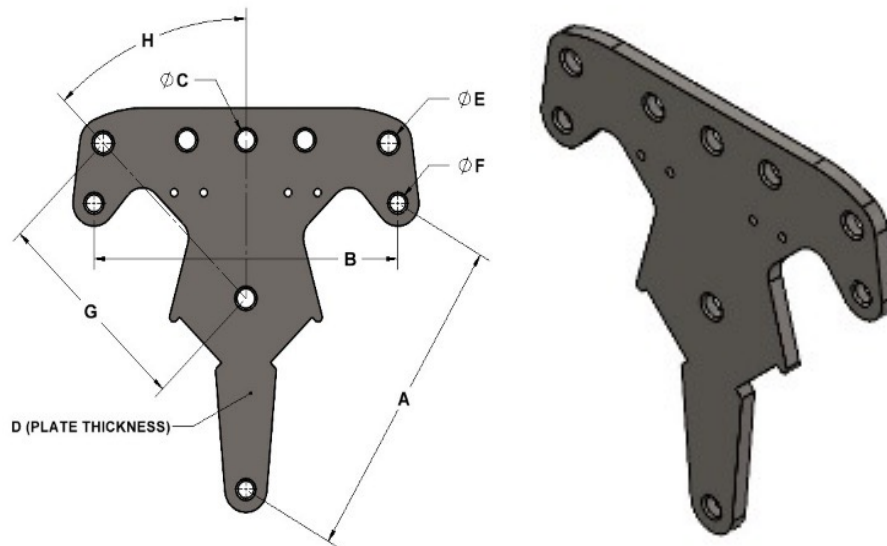
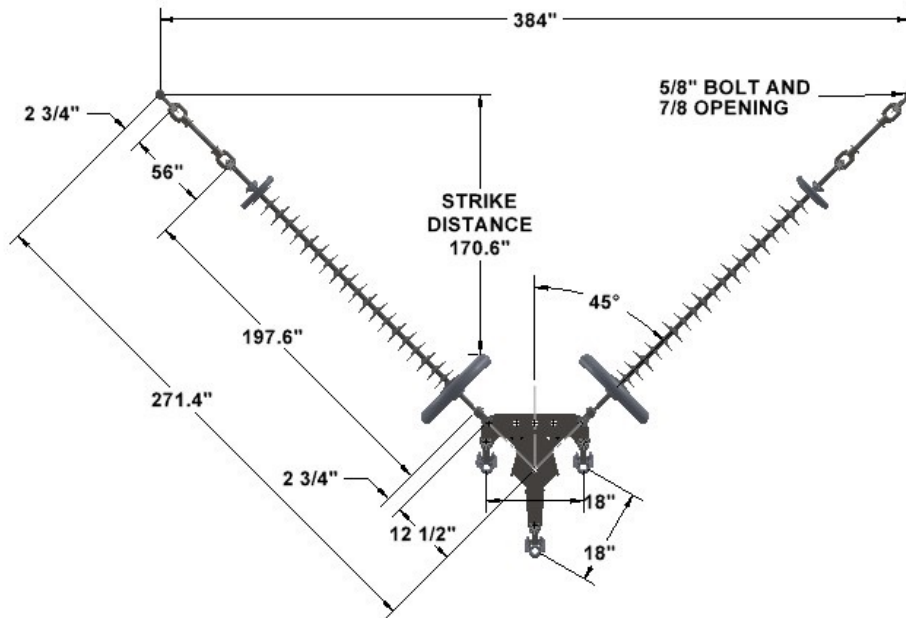




CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F
Y2DR060D1800	Ductile Iron	60,000 Lbs.	18"	6.25"	0.94"	0.75"	1.06"	-
Y2DR060S1800	Steel	60,000 Lbs.	18"	6"	0.94"	0.63"	1.06"	0.94"
Y2DR080S1800	Steel	80,000 Lbs.	18"	6"	1.06"	0.75"	1.06"	1"
Y2DR100S1800	Steel	100,000 Lbs.	18"	6"	1.06"	0.88"	1.06"	1"

Application Notes:

- Both ductile iron and steel yoke plates are hot-dipped galvanized
- Mounting hardware for corona shield is included



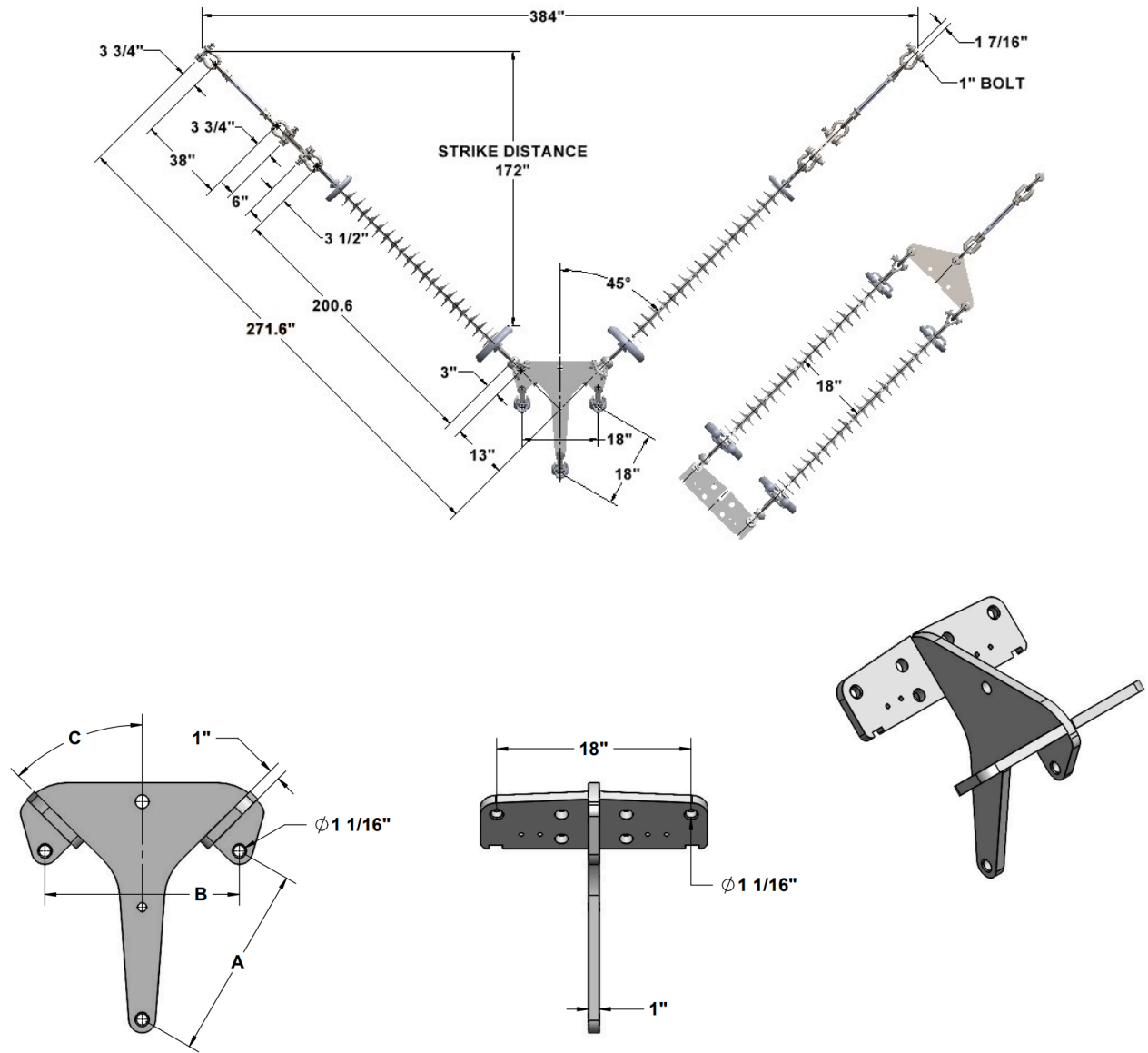
CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C	D	E	F	G	H
Y3VS050S1845	Steel	50,000 Lbs.	18"	18"	0.81"	0.75"	1.06"	0.94"	10.38"	45°
Y3VS050S1850	Steel	50,000 Lbs.	18"	18"	0.81"	0.75"	1.06"	0.94"	10.38"	50°

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Mounting hardware for corona shield is included

TRANSMISSION CONNECTION HARDWARE TRIPLE CONDUCTOR - YOKE PLATE

**Y3DV - V-String
Double String**

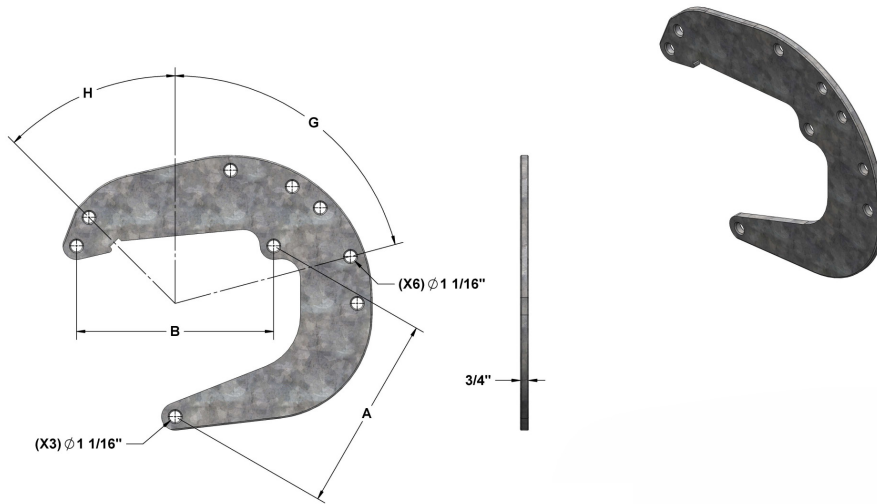
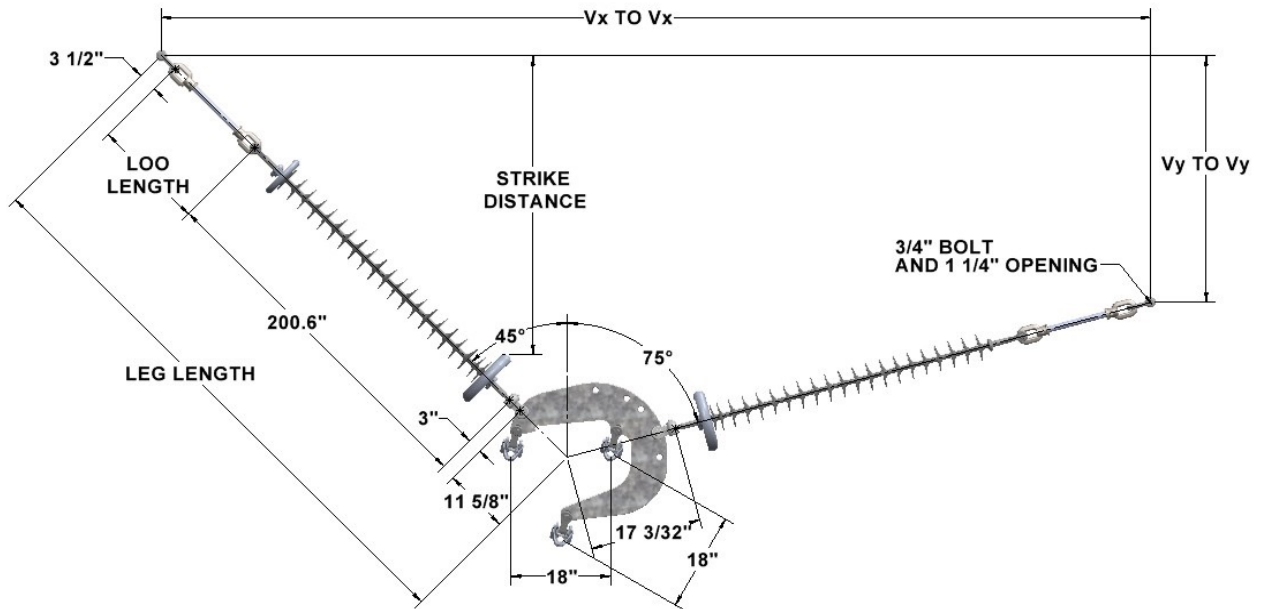


CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	C
Y3DV100S1845	Steel	100,000 Lbs.	18"	18"	45°
Y3DV100S1850	Steel	100,000 Lbs.	18"	18"	50°

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Mounting hardware for corona shield is included

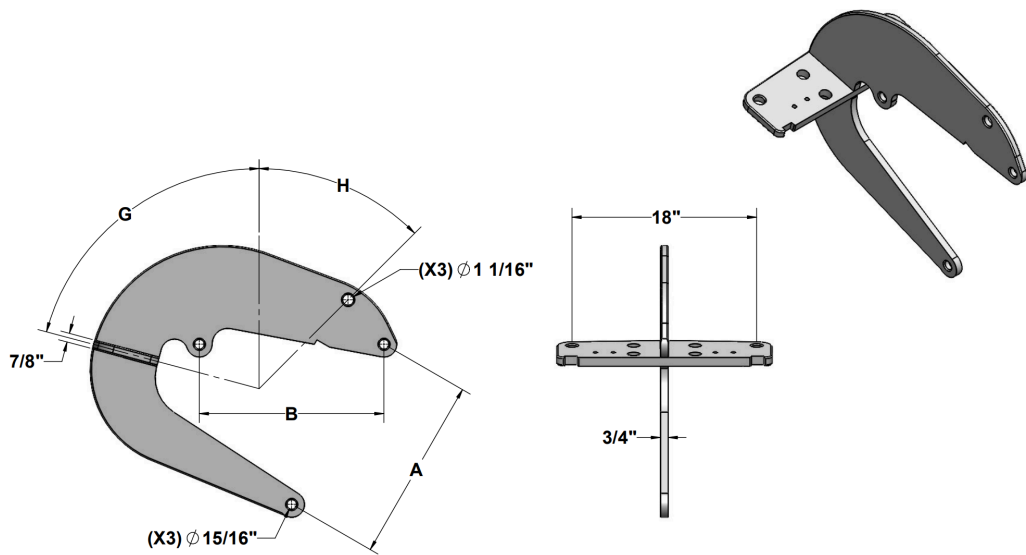
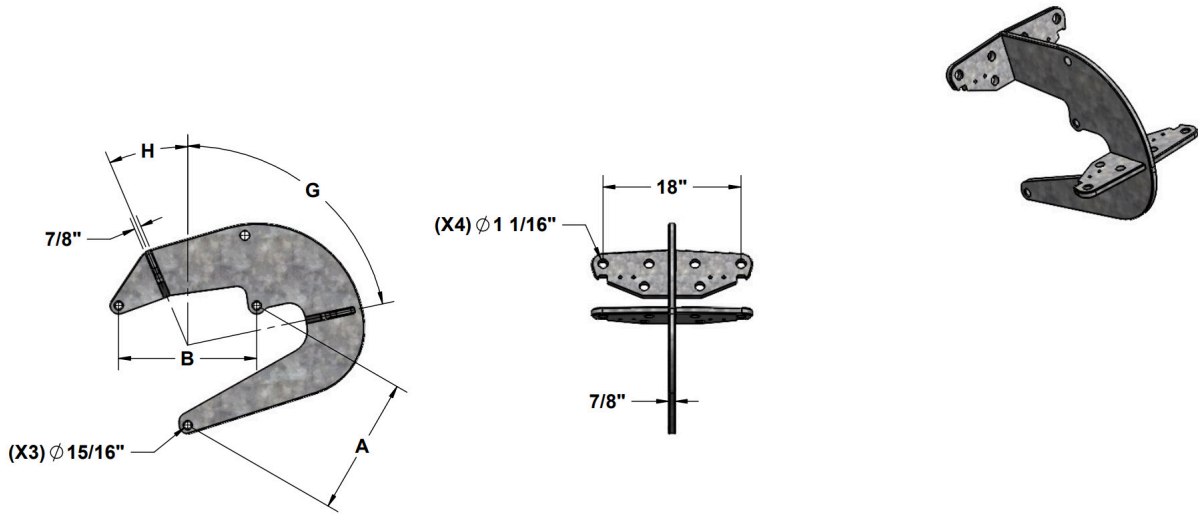




CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	G	H
Y3RV050S187545	Steel	50,000 Lbs.	18"	18"	75°	45°
Y3RV080S187545	Steel	80,000 Lbs.	18"	18"	75°	45°

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Y3RV050 = 2x50k insulator connections
- Y3RV080 = 1x80k & 1x50k insulator connections



CATALOG NUMBER	MATERIAL	MIN. ULTIMATE STRENGTH	A	B	G	H
Y3RB100S187545	Steel	100,000 Lbs.	18"	18"	75°	45°
Y3RD100S187823	Steel	100,000 Lbs.	18"	18"	78°	23°

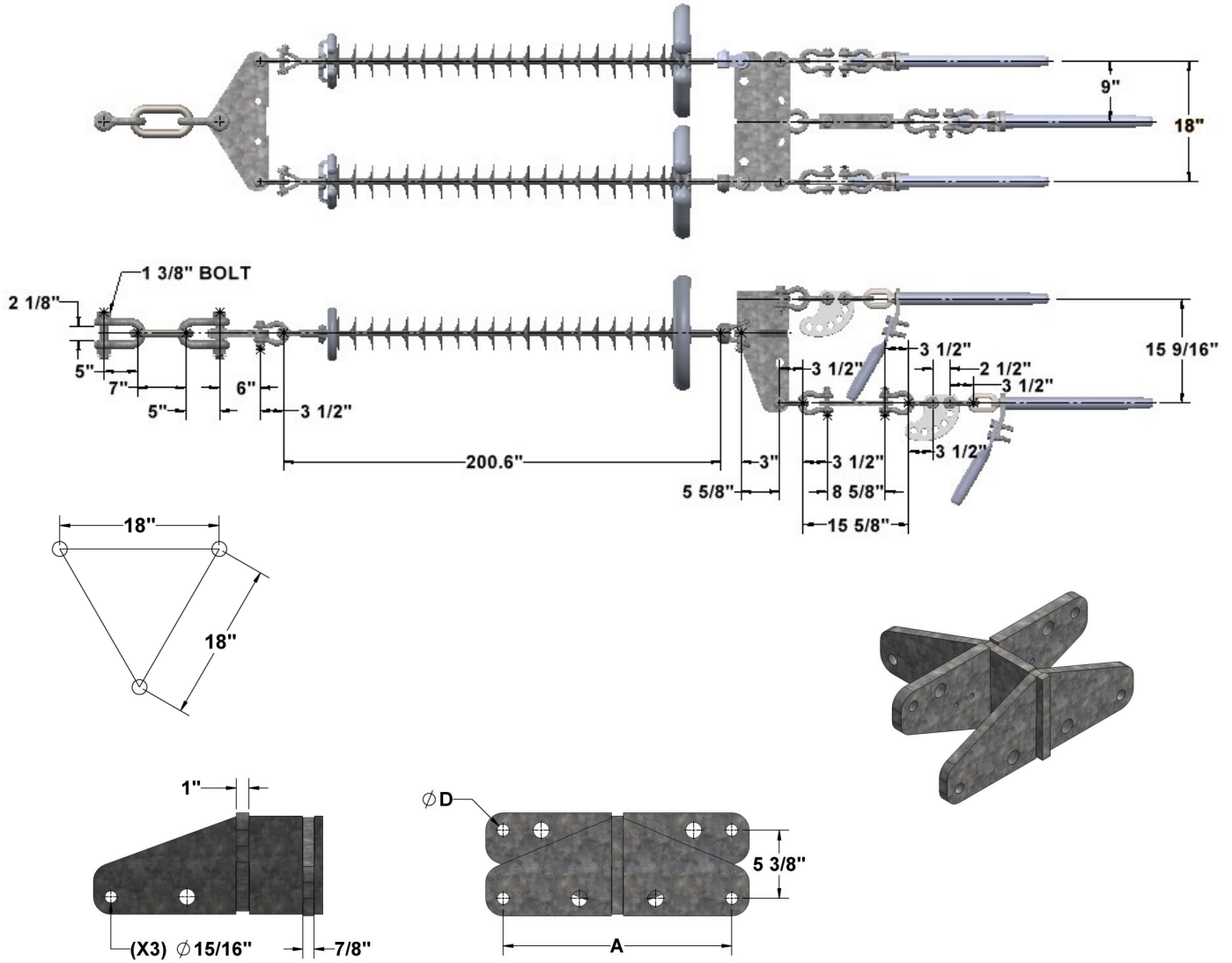
Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Tapped holes for mounting corona shield included
- Mounting hardware for corona shield included
- Y3RB = 4X insulator attachment
- Y3RD = 3X insulator attachment



**TRANSMISSION CONNECTION HARDWARE
TRIPLE CONDUCTOR - YOKE PLATE**

**Y3DE - Deadend Yoke
[2x INS / 3x Cond]**

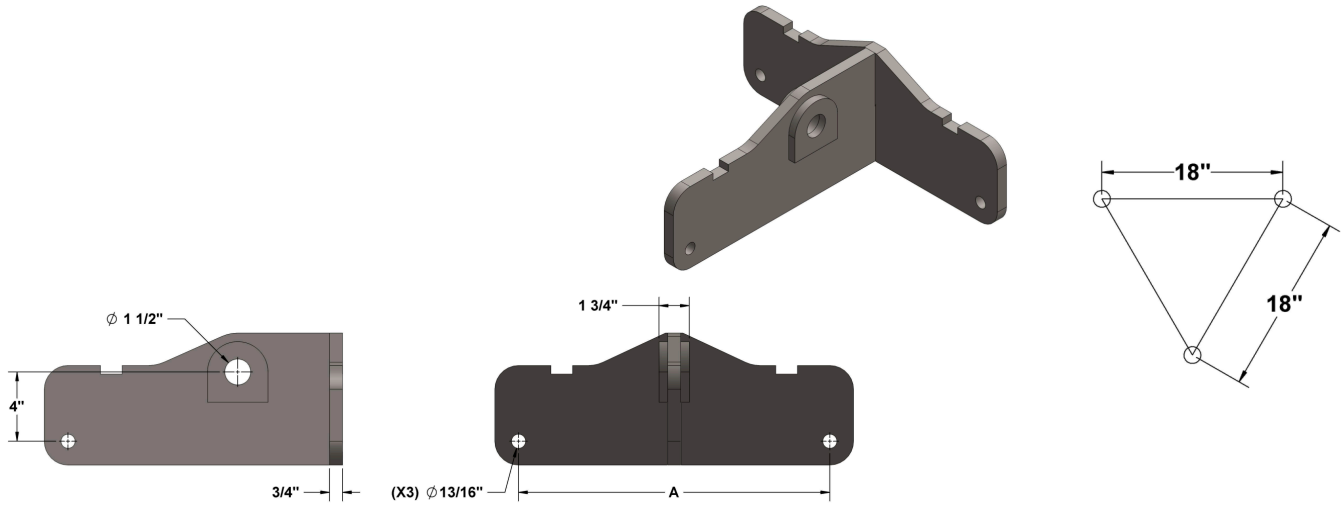


CATALOG NUMBER	A	D	INSULATOR STRINGS	MIN. ULTIMATE STRENGTH
Y3DE100S1800	18"	0.93"	2x 50k SML	100,000 Lbs.
Y3DE160S1800	18"	0.93"	2x 80k SML	160,000 Lbs.

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Tapped holes for mounting corona shield included
- Mounting hardware for corona shield included





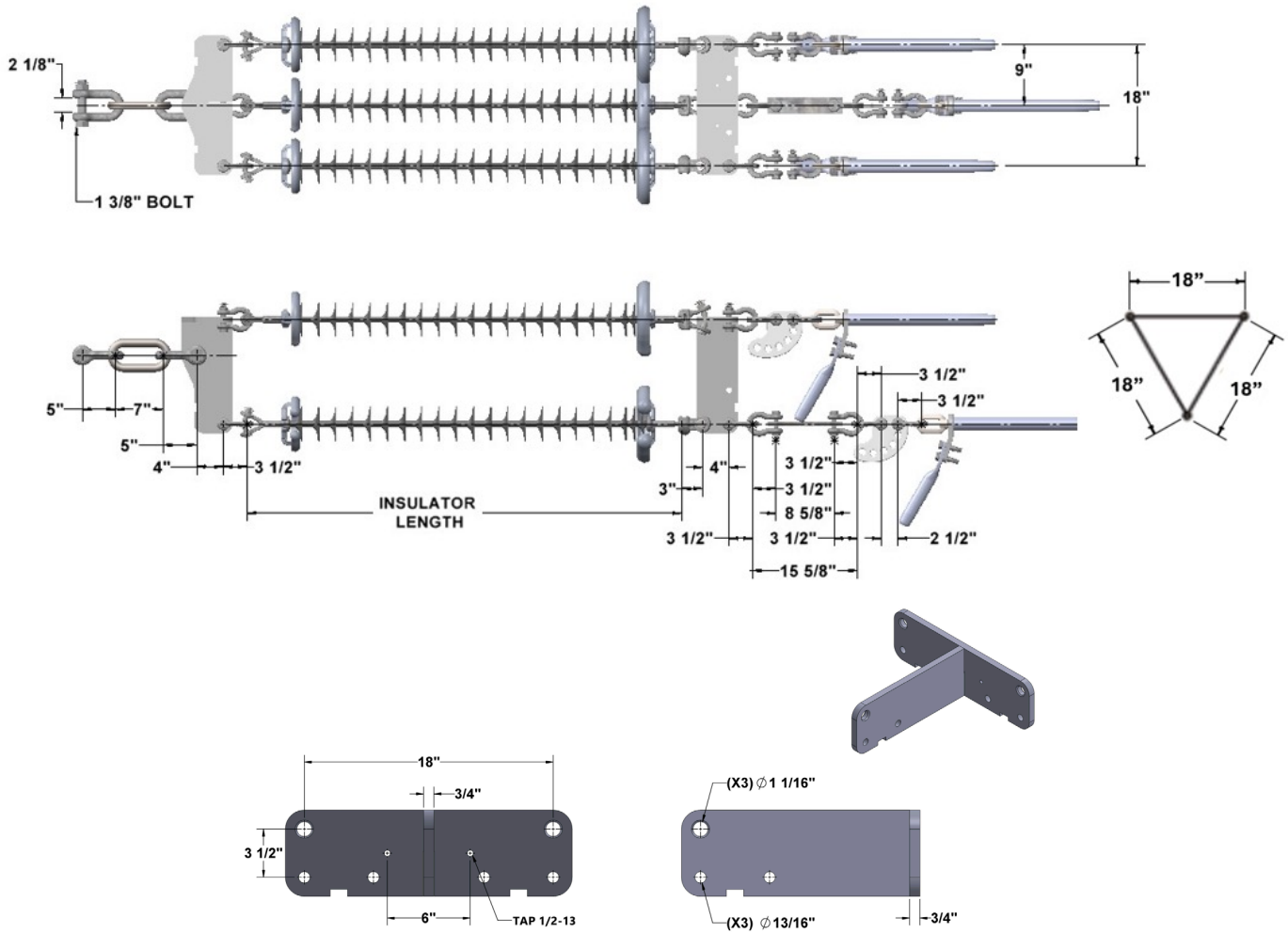
CATALOG NUMBER	INSULATOR STRINGS	MIN. ULTIMATE STRENGTH	A
Y3DT150S1800	3x 50k SML	150,000 Lbs.	18"

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Mounting hardware for corona shield included

**TRANSMISSION CONNECTION HARDWARE
TRIPLE CONDUCTOR - YOKE PLATE**

**Y3DR - Deadend Yoke
[3x INS / 3x Cond]**



CATALOG NUMBER

INSULATOR STRINGS

MIN. ULTIMATE STRENGTH

Y3DL150S1800

3x 50k SML

150,000 Lbs.

Application Notes:

- Steel yoke plates are hot-dipped galvanized
- Tapped holes for mounting corona shield included
- Mounting hardware for corona shield included

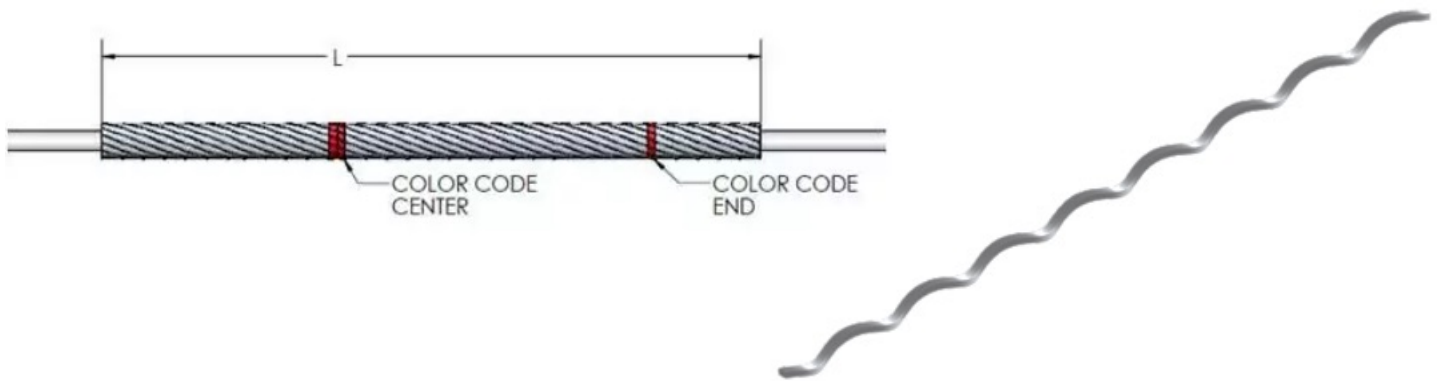


TRANSMISSION CONDUCTOR HARDWARE



MPS Transmission Sales
transmission@macleanpower.com

855.MPS.SHIP



Material:

- Aluminum alloy

Application Notes:

- Use line guards under hand ties or tap clamps to protect conductor from abrasion wear
- For use with AAC, AAAC, and ACSR conductors
- Line guards for double insulator applications also available, consult transmission@macleanpower.com
- Right hand lay standard

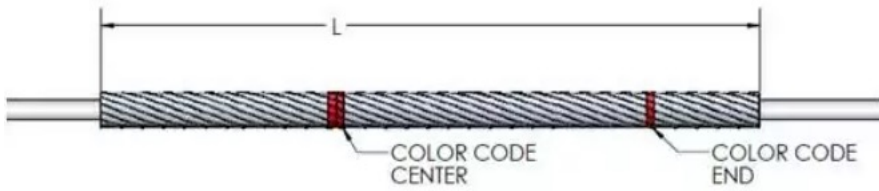
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CATALOG NUMBER	COND. MIN	COND. MAX	ROD DIA.	RODS PER SET	SINGLE APPLIED		DOUBLE APPLIED		END CONDITION	COLOR CODE
					LENGTH	CONTAINER QTY	LENGTH	CONTAINER QTY		
LGA0142	0.586"	0.606"	0.144"	14	31"	50	43"	50	Chamfered	Black
LGA0143	0.607"	0.630"	0.144"	14	33"	50	45"	40	Chamfered	White
LGA0144	0.631"	0.655"	0.144"	14	33"	50	45"	40	Chamfered	Yellow
LGA0145	0.656"	0.679"	0.144"	15	35"	50	47"	40	Chamfered	Brown
LGA0146	0.680"	0.703"	0.144"	15	35"	50	47"	40	Chamfered	Blue
LGA0147	0.704"	0.740"	0.144"	16	37"	25	49"	25	Chamfered	Green
LGA0148	0.741"	0.792"	0.144"	17	39"	25	51"	25	Chamfered	Orange
LGA0149	0.793"	0.840"	0.144"	18	39"	25	51"	25	Chamfered	Purple
LGA0150	0.841"	0.898"	0.144"	19	41"	25	53"	25	Chamfered	Blue
LGA0151	0.899"	0.954"	0.160"	18	43"	25	55"	20	Chamfered	Green
LGA0152	0.955"	0.986"	0.191"	17	45"	15	57"	10	Ball	White
LGA0153	0.987"	1.016"	0.191"	18	45"	15	57"	10	Ball	Yellow
LGA0154	1.017"	1.064"	0.191"	18	47"	15	59"	10	Ball	Brown
LGA0155	1.065"	1.098"	0.204"	17	49"	10	61"	10	Ball	Green
LGA0156EHV	1.099"	1.153"	0.250"	15	49"	10	61"	10	Ball	Orange
LGA0156100EHV	1.099"	1.153"	0.250"	15	100"	4	-	-	Parrot Bill	Orange
LGA0157EHV	1.154"	1.208"	0.250"	15	51"	10	-	-	Parrot Bill	Purple
LGA0158EHV	1.209"	1.268"	0.250"	16	53"	10	-	-	Ball	Black
LGA0158140EHV	1.209"	1.268"	0.250"	16	140"	3	-	-	Parrot Bill	Black
LGA015851EHV	1.209"	1.268"	0.250"	16	51"	10	-	-	Parrot Bill	Black
LGA0159EHV	1.269"	1.327"	0.250"	17	53"	5	-	-	Ball	White
LGA0160EHV	1.328"	1.390"	0.250"	17	55"	5	-	-	Ball	Yellow
LGA0161EHV	1.391"	1.440"	0.310"	15	57"	5	-	-	Ball	Brown
LGA0161140EHV	1.391"	1.440"	0.310"	15	140"	3	-	-	Parrot Bill	Brown
LGA0162EHV	1.441"	1.508"	0.310"	16	59"	5	-	-	Ball	Blue

Application Notes:

- All double applied have different catalog numbers





CATALOG NUMBER	COND. MIN	COND. MAX	ROD DIA.	RODS PER SET	LENGTH	CONTAINER QTY	END CONDITION	COLOR CODE
ARA0586	0.586"	0.606"	0.175"	12	62"	25	Ball	Black
ARA0607	0.607"	0.630"	0.175"	12	64"	25	Ball	Purple
ARA0631	0.631"	0.655"	0.175"	12	64"	25	Ball	Yellow
ARA0656	0.656"	0.679"	0.175"	13	62"	25	Ball	Brown
ARA0680	0.680"	0.703"	0.204"	12	68"	20	Ball	Blue
ARA0704	0.704"	0.740"	0.204"	12	72"	15	Ball	Green
ARA070496	0.704"	0.740"	0.204"	12	96"	5	Ball	Green
ARA0704123	0.704"	0.740"	0.204"	12	123"	5	Ball	Green
ARA0741	0.741"	0.782"	0.204"	13	72"	15	Ball	Orange
ARA074196	0.741"	0.782"	0.204"	13	96"	5	Ball	Orange
ARA0783	0.783"	0.814"	0.252"	11	76"	10	Ball	Purple
ARA0783127	0.783"	0.814"	0.252"	11	127"	5	Ball	Purple
ARA0815	0.815"	0.845"	0.252"	11	76"	10	Ball	Red
ARA07726	0.846"	0.907"	0.252"	12	78"	5	Ball	Blue
ARA0908	0.908"	0.929"	0.252"	13	80"	5	Ball	Green
ARA0930	0.930"	0.976"	0.252"	13	88"	5	Ball	White

Material:

- Aluminum alloy

Application Notes:

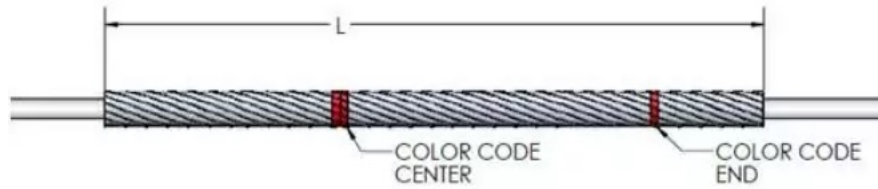
- For use with AAC, AAAC, ACAR, ACSR and ACSS conductors

Application Notes:

- Armor rods prevent damage to the conductor by increasing the stiffness of the conductor at support points, reducing abrasion, bending, and clamping stress on the conductor
- Armor rods are larger in diameter and longer than line guards
- The designs listed above have standard ball end finish. For parrot bill finish, add suffix "-EHV"

MACLEAN POWER SYSTEMS
MANKATO, MINNESOTA PLANT - DUCTILE IRON FOUNDRY





Material:

- Aluminum alloy

Application Notes:

- For use with AAC, AAAC, ACAR, ACSR and ACSS conductors
- Armor rods prevent damage to the conductor by increasing the stiffness of the conductor at support points, reducing abrasion, bending, and clamping stress on the conductor
- Armor rods are larger in diameter and longer than line guards
- The designs listed on the following page are for EHV applications, but can also be used for HV applications

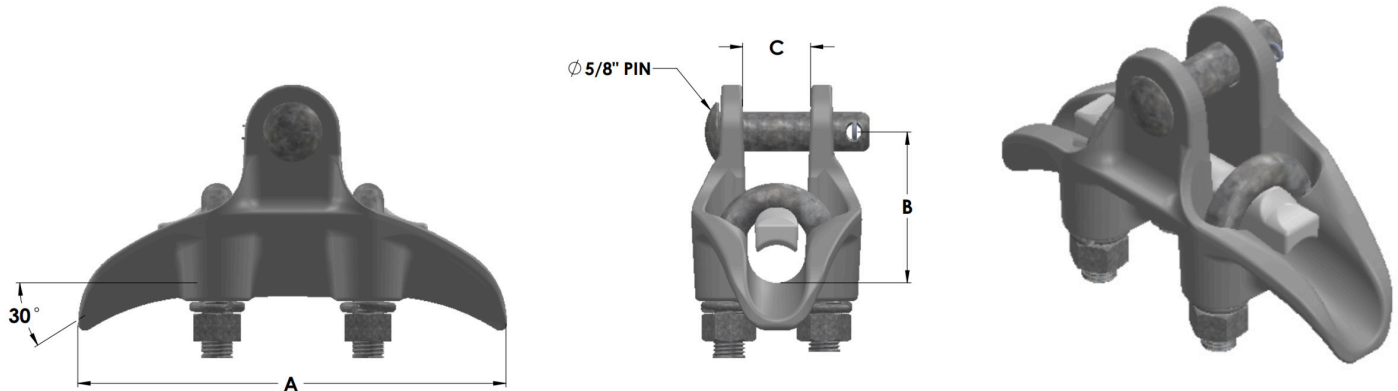
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TRANSMISSION CONDUCTOR HARDWARE FORMED WIRE

ARA
Armor Rods [EHV]

CATALOG NUMBER	COND. MIN	COND. MAX	ROD DIA.	RODS PER SET	LENGTH	CONDUCTOR QTY	END CONDITION	COLOR CODE
ARA63626EHV	0.977"	1.016"	0.310"	11	92"	5	Parrot Bill	Yellow
ARA1017EHV	1.017"	1.035"	0.310"	12	94"	5	Parrot Bill	Brown
ARA1036EHV	1.036"	1.064"	0.310"	12	96"	5	Parrot Bill	Blue
ARA1065EHV	1.065"	1.098"	0.310"	12	96"	5	Parrot Bill	Green
ARA79526EHV	1.099"	1.139"	0.310"	12	100"	5	Parrot Bill	Orange
ARA1140EHV	1.140"	1.161"	0.310"	13	100"	5	Parrot Bill	Purple
ARA95445EHV	1.162"	1.208"	0.310"	13	100"	4	Parrot Bill	Red
ARA1209EHV	1.209"	1.269"	0.365"	12	100"	4	Parrot Bill	Black
ARA1270EHV	1.270"	1.327"	0.365"	12	100"	4	Parrot Bill	White
ARA127245EHV	1.328"	1.390"	0.365"	13	100"	3	Parrot Bill	Yellow
ARA1391EHV	1.391"	1.440"	0.436"	11	100"	3	Parrot Bill	Brown
ARA159045EHV	1.441"	1.508"	0.436"	12	100"	2	Parrot Bill	Blue
ARA1509EHV	1.509"	1.578"	0.436"	12	100"	2	Parrot Bill	Green
ARA1579EHV	1.579"	1.651"	0.436"	13	100"	1	Parrot Bill	Orange
ARA1652EHV	1.652"	1.728"	0.436"	13	100"	1	Parrot Bill	Purple
ARA1729120EHV	1.729"	1.809"	0.436"	14	120"	2	Parrot Bill	Red
ARA1729EHV	1.729"	1.809"	0.436"	14	100"	2	Parrot Bill	Red
ARA172970EHV	1.729"	1.809"	0.436"	14	70"	2	Parrot Bill	Red
ARA181080EHV	1.810"	1.898"	0.436"	14	80"	2	Parrot Bill	Black





CATALOG NUMBER	CONDUCTOR RANGE	DIMENSIONS			OPTION FITTING		ULTIMATE STRENGTH	WEIGHT / 100
		A	B	C	SOCKET (-S)	CLEVIS (-C)		
FSC-46	0.16" - 0.46"	5.63"	2"	0.69"	SI-500	SCE-55-500	16,000 Lbs.	247 Lbs.
FSC-60	0.20" - 0.60"	6.38"	2"	0.88"	SI-625	SCE-55-625	17,000 Lbs.	308 Lbs.
FSC-83	0.30" - 0.83"	6.75"	2.38"	1"	SI-875	SCE-55-875	18,000 Lbs.	400 Lbs.

Material:

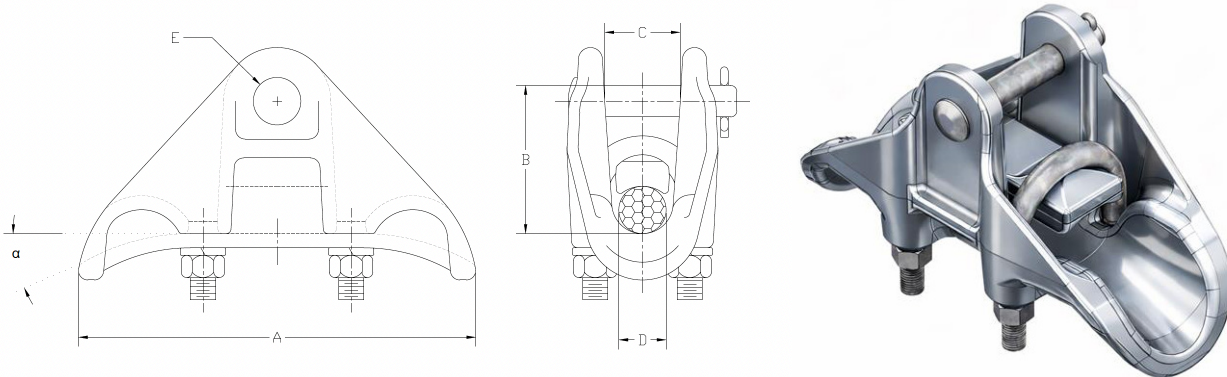
- Body & keeper - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Fitting Notes:

- "N" suffix indicates no fitting
- Socket applications - connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
 - "-S8" suffix for ANSI 52-8 / 52-11 socket eye fitting
- Clevis applications - connection to yoke plate / bracket
 - "-RYCI" suffix for y-clevis eye fitting
 - "-C" suffix for straight clevis eye fitting
- For bolt, nut, and cotter, add suffix "-BC" to catalog #

Application Notes:

- Single keeper u-bolt compression
- Recommended torque on u-bolts:
 - 1/2" = 40-45 ft-lbs.



DIMENSIONS

CATALOG NUMBER	COND. RANGE	A	B	C	E	α	52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)	CLEVIS (-C)	ULTIMATE STRENGTH	WEIGHT/100
LS-0-N	0.20" - 0.70"	6.44"	2.13"	0.84"	0.5"	0.5"	SI-625	RYCE-65-625A	SCE-625	18000 Lbs.	180 Lbs.
LS-2-N	0.40" - 1.05"	7.5"	2.5"	1.25"	0.5"	0.5"	SI-1125	RYCE-65-1062	SCE-55-1125	25000 Lbs.	273 Lbs.
LS-4-N	0.75" - 1.37"	7.88"	2.75"	1.56"	0.5"	0.5"	SI-1375	RYCE-65-1250	SCE-55-1375A	25000 Lbs.	346 Lbs.
LS-6-N	1.00" - 1.49"	8.56"	3"	1.63"	0.5"	0.5"	SI-1375	RYCE-65-1250	SCE-55-1375A	25000 Lbs.	376 Lbs.
LS-7-N	1.10" - 1.77"	9.88"	3.25"	2"	0.5"	0.5"	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	461 Lbs.
LS-8-N	1.25" - 1.92"	9.88"	3.5"	2.13"	0.5"	0.5"	SI-1750	RYCI-65-1750	SCE-55-1750	25000 Lbs.	486 Lbs.
LS-9-N	1.40" - 2.18"	10"	3.81"	2.25"	0.5"	0.5"	SI-2000	RYCI-65-2000	SCE-55-2000	25000 Lbs.	686 Lbs.
ASC-10-N	1.75" - 2.33"	10.38"	3.88"	2.31"	0.63"	0.63"	SI-2187	RYCI-65-2187	SCE-55-2187*	25000 Lbs.	705 Lbs.
ASC-11-N	2.00" - 2.55"	11"	4.13"	2.63"	0.63"	0.63"	SI-2500	RYCI-65-2500	SCE-55-2500*	25000 Lbs.	894 Lbs.
ASC-12-N	2.35" - 2.85"	14"	5"	3"	0.63"	0.63"	SE-2750-6	RYCI-65-2500	-	40000 Lbs.	1280 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Fitting Notes:

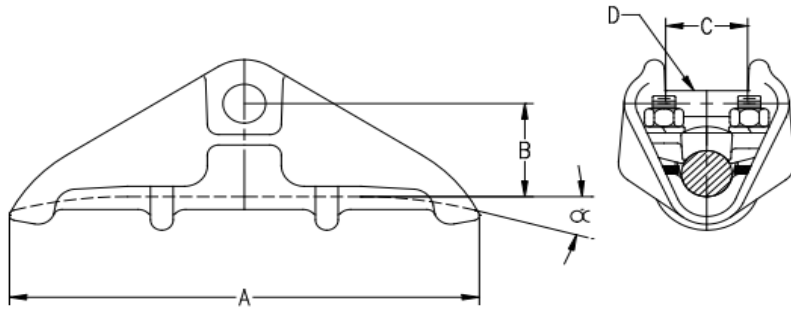
- "N" suffix indicates no fitting
- Socket applications - connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
 - "-S8" suffix for ANSI 52-8 / 52-11 socket eye fitting

Fitting Notes:

- Clevis applications - connection to yoke plate / bracket
 - "-RYCI" suffix for y-clevis eye fitting
 - "-C" suffix for straight clevis eye fitting
- For bolt, nut, and cotter, add suffix "-BC" to catalog #

Application Notes:

- Single keeper u-bolt compression
- Recommended torque on u-bolts:
 - 1/2" = 40-45 ft-lbs.
 - 5/8" = 65-70 ft-lbs.
- Can be used in high temperature applications if using armor rod (supplied separately)



CATALOG NUMBER	COND. RANGE	DIMENSIONS					52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)	CLEVIS (-C)	ULTIMATE STRENGTH	WEIGHT/100
		A	B	C	D	α					
CF-111-N	1.00" - 1.11"	10.5"	2.25"	1.88"	0.63"	15°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	405 Lbs.
CF-120-N	1.11" - 1.20"	10.5"	2.25"	1.88"	0.63"	15°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	415 Lbs.
CF-143-N	1.20" - 1.43"	10.5"	2.44"	1.88"	0.63"	15°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	460 Lbs.
CF-163-N	1.43" - 1.63"	11.5"	2.63"	2.38"	0.63"	15°	SI-2187	RYCE-65-2187	SCE-55-2187	25000 Lbs.	500 Lbs.
CF-184-N	1.63" - 1.84"	11.5"	2.88"	2.5"	0.63"	15°	SI-2187	RYCE-65-2187	SCE-55-2187	25000 Lbs.	510 Lbs.
CFA-111-N	1.00" - 1.11"	13"	2.38"	1.88"	0.63"	30°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	440 Lbs.
CFA-120-N	1.11" - 1.20"	13"	2.25"	1.88"	0.63"	30°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	440 Lbs.
CFA-143-N	1.20" - 1.43"	13"	2.44"	1.88"	0.63"	30°	SI-1750	RYCE-65-1750	SCE-55-1750	25000 Lbs.	490 Lbs.
CFA-204-N	1.82" - 2.04"	13.75"	3.17"	2.75"	0.63"	30°	SI-2187	RYCE-65-2187	SCE-55-2187	25000 Lbs.	610 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Fitting Notes:

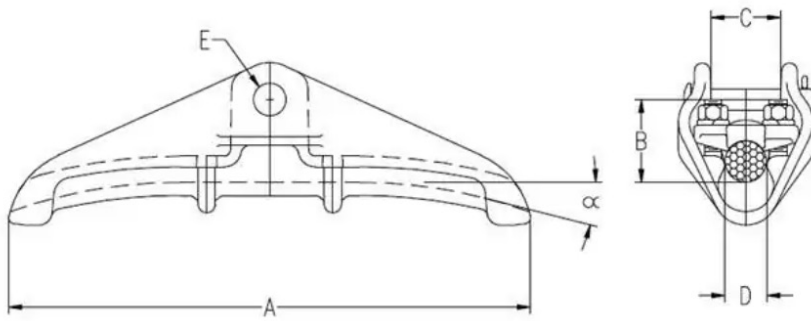
- "N" suffix indicates no fitting
- Socket applications - connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
 - "-S8" suffix for ANSI 52-8 / 52-11 socket eye fitting
- Clevis applications - connection to yoke plate / bracket
 - "-RYCI" suffix for y-clevis eye fitting
 - "-C" suffix for straight clevis eye fitting

Application Notes:

- Recommended torque on u-bolts:
 - 1/2" = 40-45 ft-lbs
- Can be used in high temperature applications if using armor rod (supplied separately)
- U-bolts are inverted / retained in place by neoprene grommets

TRANSMISSION CONDUCTOR HARDWARE SUSPENSION CLAMPS

**ACFS Series: CF Formula Clamp
Bare Conductor Application**



DIMENSIONS

CATALOG NUMBER	COND. RANGE	A	B	C	E	α	52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)	CLEVIS (-C)	ULTIMATE STRENGTH
ACFS-108-19-25-N	1.00" - 1.08"	19"	2.38"	2"	0.63"	18°	SI-1750	RYCI-65-1750	SCE-55-1750	25000 Lbs.
ACFS-114-19-25-N	1.05" - 1.14"	19.31"	2.38"	2"	0.63"	18°	SI-1750	RYCI-65-1750	SCE-55-1750	25000 Lbs.
ACFS-120-20-30-N	1.10" - 1.20"	20.38"	2.44"	2"	0.63"	20°	SI-1750	RYCI-65-1750	SCE-55-1750	30000 Lbs.
ACFS-138-20-30-N	1.24" - 1.38"	20.38"	2.44"	2"	0.63"	20°	SI-1750	RYCI-65-1750	SCE-55-1750	30000 Lbs.
ACFS-155-20-25-N	1.45" - 1.55"	18.75"	2.69"	2.5"	0.63"	32°	SI-2187	RYCI-65-2187	SCE-55-2187	25000 Lbs.
ACFS-175-20-20-N	1.62" - 1.75"	20"	2.88"	2.38"	0.63"	15°	SI-2187	RYCI-65-2187	SCE-55-2187	20000 Lbs.
ACFS-180-20-25-N	1.68" - 1.80"	19.88"	2.88"	2.5"	0.63"	32°	SI-2187	RYCI-65-2187	SCE-55-2187	25000 Lbs.
ACFS-186-20-20-N	1.73" - 1.86"	20"	3.25"	2.5"	0.63"	18°	SI-2187	RYCI-65-2187	SCE-55-2187	20000 Lbs.
ACFS-214-20-20-N	1.99" - 2.14"	20"	3.25"	2.5"	0.63"	15°	SI-2187	RYCI-65-2187	SCE-55-2187	20000 Lbs.
ACFS-244-20-20-N	2.37" - 2.44"	20"	3.25"	2.5"	0.63"	17°	SI-2187	RYCI-65-2187	SCE-55-2187	20000 Lbs.
ACFS-254-12-25-N	2.40" - 2.54"	12.5"	3.75"	3"	0.63"	18°	SI-2500	RYCI-65-2500	SCE-55-2500	25000 Lbs.
ACFS-271-12-25-N	2.56" - 2.71"	12.5"	3.75"	3"	0.63"	18°	SI-2500	RYCI-65-2500	SCE-55-2500	25000 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

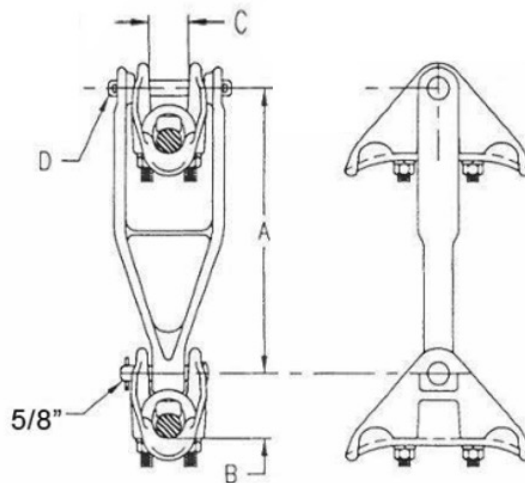
Fitting Notes:

- "N" suffix indicates no fitting
- Socket applications - connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
 - "-S8" suffix for ANSI 52-8 / 52-11 socket eye fitting
- Clevis applications - connection to yoke plate / bracket
 - "-RYCI" suffix for y-clevis eye fitting
 - "-C" suffix for straight clevis eye fitting

Application Notes:

- ACFS clamps used on bare ACSR conductor
- No armor rod required
- U-bolts are inverted / retained in place by neoprene grommets
- Recommended torque on 1/2" u-bolts 40-45 ft-lbs
- Can be used in high temperature applications if using armor rod (supplied separately)





Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Ultimate Strength:

- VBLS – lower clamp 14,000 lbs., complete assembly 25,000 lbs.
- VBCF – lower clamp 25,000 lbs., complete assembly 36,000 lbs.
- VBACFS – lower clamp 25,000 lbs., complete assembly 36,000 lbs.
 - For 50,000 complete assembly, add suffix "FE" to catalog

Fitting Notes:

- "N" suffix indicates no fitting

Application Notes:

- Uses standard LS, CF, or ACFS clamps
- 12" bundle length, for assistance, contact transmission@macleanpower.com

LS SERIES VERTICAL BUNDLE ASSEMBLY SUSPENSION CLAMPS

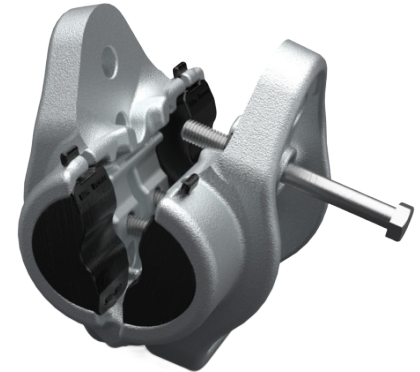
CATALOG NUMBER	COND. RANGE MIN	COND. RANGE MAX	CLAMP CATALOG NO.	DIMENSIONS				52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)
				A	B	C	D		
VBLS-18-33-N	0.75"	1.19"	LS-3	18"	2.63"	1.38"	0.63"	SI-1125	RYCI-65-1250
VBLS-18-44-N	0.87"	1.32"	LS-4	18"	2.75"	1.56"	0.63"	SI-1375	RYCI-65-1250
VBLS-18-66-N	1.00"	1.49"	LS-6	18"	3"	1.63"	0.63"	SI-1375	RYCI-65-1250
VBLS-18-77-N	1.10"	1.77"	LS-7	18"	3.25"	2"	0.63"	SI-1750	RYCI-65-1750
VBLS-18-88-N	1.25"	1.92"	LS-8	18"	3.5"	2.13"	0.63"	SI-1750	RYCI-65-1750
VBLS-18-99-N	1.40"	2.18"	LS-9	18"	3.81"	2.25"	0.63"	SI-2000	RYCI-65-2000
VBLS-18-1100-N	1.40"	2.18"	ASC-10	18"	3.88"	2.31"	0.63"	SI-2187	RYCI-65-2187
VBLS-18-1111-N	2.00"	2.55"	ASC-11	18"	4.13"	2.63"	0.63"	SI-2500	RYCI-65-2500
VBLS-18-1212-N	2.35"	2.85"	ASC-12	18"	5"	3"	0.75"	SI-2750	RYCI-65-2500

CF SERIES VERTICAL BUNDLE ASSEMBLY SUSPENSION CLAMPS

CATALOG NUMBER	COND. RANGE MIN	COND. RANGE MAX	CLAMP CATALOG NO.	DIMENSIONS				52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)
				A	B	C	D		
VBCF-18-111-N	1"	1.11"	CF-111	18"	2.25"	1.88"	0.63"	SI-1750-6	RYCI-66-1750
VBCF-18-120-N	1.11"	1.2"	CF-120	18"	2.25"	1.88"	0.63"	SI-1750-6	RYCI-66-1750
VBCF-18-143-N	1.2"	1.43"	CF-143	18"	2.44"	1.88"	0.63"	SI-1750-6	RYCI-66-1750
VBCF-18-163-N	1.43"	1.63"	CF-163	18"	2.63"	2.38"	0.63"	SI-2187-6	RYCI-66-2125
VBCF-18-184-N	1.63"	1.82"	CF-184	18"	2.88"	2.5"	0.63"	SI-2187-6	RYCI-66-2125
VBCFA-18-204-N	1.82"	2.04"	CF-204	18"	3.17"	2.75"	0.63"	SI-2187-6	RYCI-66-2125

ACFS SERIES VERTICAL BUNDLE ASSEMBLY SUSPENSION CLAMPS

CATALOG NUMBER	COND. RANGE MIN	COND. RANGE MAX	CLAMP CATALOG NO.	DIMENSIONS				52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)
				A	B	C	D		
VBACFS-18-175-2020-N	1.63"	1.75"	ACFS-175-20-20-N	18"	2.88"	2.38"	0.75"	SI-2187-6	RYCI-66-2125
VBACFS-18-186-2020-N	1.76"	1.86"	ACFS-186-20-20-N	18"	3.25"	2.5"	0.75"	SI-2187-6	RYCI-66-2125
VBACFS-18-214-2020-N	2.04"	2.14"	ACFS-214-20-20-N	18"	3.25"	2.5"	0.75"	SI-2187-6	RYCI-66-2125
VBACFS-18-244-2020-N	2.28"	2.44"	ACFS-244-20-20-N	18"	3.25"	2.88"	0.75"	SI-2500-6	RYCI-66-2750



CATALOG NUMBER	FITTING TYPE	CONDUCTOR RANGE (MIN)	CONDUCTOR RANGE (MAX)	ULTIMATE STRENGTH	WEIGHT
GSSC0883	None	0.609"	0.883"	30,000 Lbs.	8.5 Lbs.
GSSC1196	None	0.884"	1.196"	30,000 Lbs.	8.5 Lbs.
GSSC1545	None	1.197"	1.545"	30,000 Lbs.	9 Lbs.
GSSC2001	None	1.546"	2.001"	30,000 Lbs.	9 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Features:

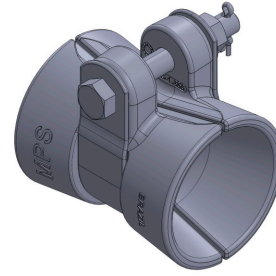
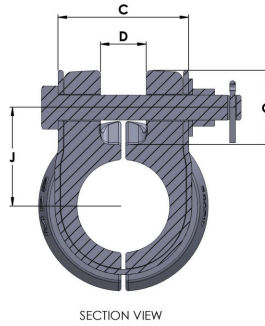
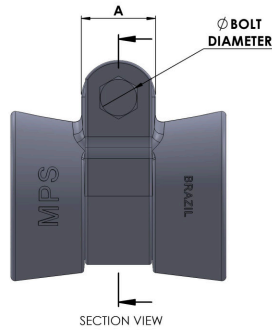
- Aluminum keepers provide strong mechanical grip without damaging the conductor
- Combination of rubber inserts and aluminum keeper automatically accommodates thermal cycling, ensuring consistent hold during expansion and contraction
- Rubber inserts provide natural damping, minimizing Aeolian vibration and mechanical stress on the conductor

Fitting Notes:

- Socket applications – connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
- Clevis applications – connection to yoke plate / bracket
 - "-RYCI" suffix for y-clevis eye fitting
 - "-C" suffix for straight clevis eye fitting
- Add "-BC" suffix for bolt, nut, and cotter key

Application Notes:

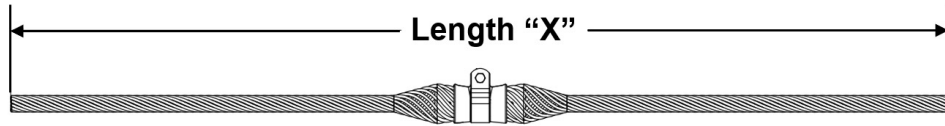
- Designed to withstand continuous operation with temperatures less than 250 deg. C
- Recommended torque on 1/2" Hex Bolts = 40 - 45 ft/lbs in an alternating sequence



COND. MIN	COND. MAX	A	C	D	G	J	BOLT DIA.	VERTICAL RATING
0.543"	0.645"	1.75"	2.16"	0.72"	1.91"	0.18"	0.63"	10,000 Lbs.
0.646"	0.75"	1.75"	2.25"	0.75"	2.16"	0.18"	0.63"	15,000 Lbs.
0.751"	0.907"	2"	2.69"	0.88"	2.34"	0.18"	0.63"	20,000 Lbs.
0.908"	1.005"	2"	2.94"	0.88"	2.83"	0.18"	0.63"	20,000 Lbs.
1.006"	1.208"	2.25"	3.5"	1.19"	2.7"	0.18"	0.63"	25,000 Lbs.
1.209"	1.355"	2.25"	3.63"	1.25"	3.16"	0.18"	0.75"	25,000 Lbs.
1.356"	1.557"	2.25"	4.12"	1.38"	2.97"	0.2"	0.75"	25,000 Lbs.
1.558"	1.882"	2.5"	4.69"	2.25"	3.19"	0.2"	0.75"	25,000 Lbs.

FITTINGS FOR HSC SERIES

COND. RANGE	CATALOG NUMBER			HSC RATING
	SOCKET EYE (-S)	CLEVIS EYE (-C)	Y-CLEVIS EYE (-RYCI)	
0.543" - 0.645"	SI-500	SCE-55-500	RYCE-65-625	10,000 Lbs.
0.646" - 0.750"	SI-500	SCE-55-500	RYCE-65-625	15,000 Lbs.
0.751" - 0.907"	SI-750	SCE-55-750	RYCE-65-750	20,000 Lbs.
0.908" - 1.005"	SI-750	SCE-55-750	RYCE-65-750	20,000 Lbs.
1.006" - 1.208"	SI-1062	SCE-55-1125	RYCE-65-1062	25,000 Lbs.
1.209" - 1.355"	SE-1000-6	SCE-56-1125	RYCE-66-1062	25,000 Lbs.
1.356" - 1.557"	SE-1000-6	SCE-56-1125	RYCE-66-1062	25,000 Lbs.
1.558" - 1.882"	SE-2000-6	SCE-56-2187	RYCE-66-2125	25,000 Lbs.



Fitting Options:

- 52-3/5 socket = "-S"
- Rotated y-clevis eye = "-RYCI"
- Straight clevis eye fitting = "-C"

Conductor Notes:

- For use on AAAC, AAC, ACSR, compacted ACSR, ACSS, and ACSS/ TW
- For high temperature conductors such as ACSS, ACCR, etc., add "-HT" as a suffix to the catalog #

Application Notes:

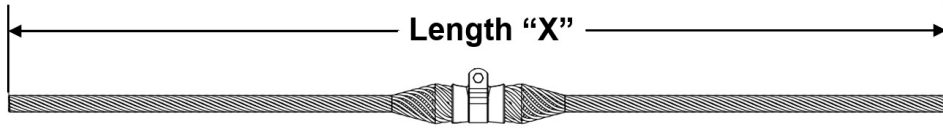
- Designed for use on tangent applications and for line angles up to 30°
- Slip load is rated for 10-20% of conductor RBS
- Designs are for HV applications $\leq 230\text{kV}$
- 18" vertical bundle assembly also available (far right column)

CONTINUE TO NEXT PAGE...

TRANSMISSION CONDUCTOR HARDWARE SUSPENSION CLAMPS

HSC Series Single Helical Clamps

CATALOG NUMBER	COND. MIN.	COND. MAX.	LENGTH "X"	ROD DIA.	STD PACK WEIGHT	STD PACK	COLOR CODE	18" VERTICAL BUNDLE ASSEMBLY
HSC-0543-N	0.543"	0.555"	44"	0.182"	41 Lbs.	12	Black	VBHSC-18-0543-N
HSC-0556-N	0.556"	0.573"	44"	0.182"	42 Lbs.	12	White	VBHSC-18-0556-N
HSC-0574-N	0.574"	0.594"	45"	0.182"	43 Lbs.	12	Brown	VBHSC-18-0574-N
HSC-0595-N	0.595"	0.606"	46"	0.182"	43 Lbs.	12	Orange	VBHSC-18-0595-N
HSC-0607-N	0.607"	0.619"	46"	0.182"	43 Lbs.	12	Purple	VBHSC-18-0607-N
HSC-0620-N	0.62"	0.645"	50"	0.182"	46 Lbs.	12	Red	VBHSC-18-0620-N
HSC-0646-N	0.646"	0.673"	54"	0.204"	42 Lbs.	9	Blue	VBHSC-18-0646-N
HSC-0674-N	0.674"	0.69"	54"	0.204"	42 Lbs.	9	Green	VBHSC-18-0674-N
HSC-0691-N	0.691"	0.71"	54"	0.204"	43 Lbs.	9	Yellow	VBHSC-18-0691-N
HSC-0711-N	0.711"	0.731"	55"	0.204"	43 Lbs.	9	Black	VBHSC-18-0711-N
HSC-0732-N	0.732"	0.75"	56"	0.204"	44 Lbs.	9	White	VBHSC-18-0732-N
HSC-0751-N	0.751"	0.768"	60"	0.25"	41 Lbs.	6	Brown	VBHSC-18-0751-N
HSC-0769-N	0.769"	0.795"	60"	0.25"	43 Lbs.	6	Orange	VBHSC-18-0769-N
HSC-0796-N	0.796"	0.824"	61"	0.25"	43 Lbs.	6	Purple	VBHSC-18-0796-N
HSC-0825-N	0.825"	0.845"	64"	0.25"	44 Lbs.	6	Red	VBHSC-18-0825-N
HSC-0846-N	0.846"	0.87"	64"	0.25"	44 Lbs.	6	Blue	VBHSC-18-0846-N
HSC-0871-N	0.871"	0.893"	65"	0.25"	46 Lbs.	6	Green	VBHSC-18-0871-N
HSC-0894-N	0.894"	0.907"	65"	0.25"	46 Lbs.	6	Green	VBHSC-18-0894-N
HSC-0908-N	0.908"	0.92"	66"	0.25"	44 Lbs.	5	Yellow	VBHSC-18-0908-N
HSC-0921-N	0.921"	0.937"	66"	0.25"	44 Lbs.	5	Black	VBHSC-18-0921-N
HSC-0938-N	0.938"	0.962"	67"	0.25"	44 Lbs.	5	White	VBHSC-18-0938-N
HSC-0963-N	0.963"	0.986"	68"	0.25"	46 Lbs.	5	Brown	VBHSC-18-0963-N
HSC-0987-N	0.987"	1.005"	69"	0.25"	46 Lbs.	5	Orange	VBHSC-18-0987-N



Fitting Options:

- 52-3/5 socket = "-S"
- Rotated y-clevis eye = "-RYCI"
- Straight clevis eye fitting = "-C"

Application Notes:

- "-EHV" suffix designates these HSC as EHV designs for use at 345kV and above (also applicable at HV voltages)
- For high temp application, add suffix "-HT"
- 18" vertical bundle assembly also available (far right column)

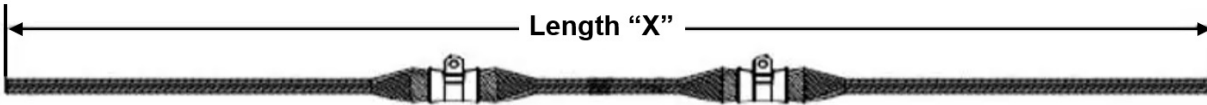
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TRANSMISSION CONDUCTOR HARDWARE SUSPENSION CLAMPS

HSC Series EHV Single Helical Clamps

CATALOG NUMBER	COND. MIN.	COND. MAX.	LENGTH "X"	ROD DIA.	STD PACK WEIGHT	STD PACK	COLOR CODE	18" VERTICAL BUNDLE ASSEMBLY
HSC-1006-EHV-N	1.006"	1.022"	70"	0.31"	31 Lbs.	3	Purple	VBHSC-18-1006-EHVN
HSC-1023-EHV-N	1.023"	1.04"	78"	0.31"	39 Lbs.	3	Red	VBHSC-18-1023-EHVN
HSC-1041-EHV-N	1.041"	1.074"	78"	0.31"	39 Lbs.	3	Blue	VBHSC-18-1041-EHVN
HSC-1075-EHV-N	1.075"	1.09"	78"	0.31"	41 Lbs.	3	Green	VBHSC-18-1075-EHVN
HSC-1091-EHV-N	1.091"	1.118"	78"	0.31"	41 Lbs.	3	Yellow	VBHSC-18-1091-EHVN
HSC-1119-EHV-N	1.119"	1.136"	78"	0.31"	41 Lbs.	3	Black	VBHSC-18-1119-EHVN
HSC-1137-EHV-N	1.137"	1.152"	78"	0.31"	41 Lbs.	3	White	VBHSC-18-1137-EHVN
HSC-1153-EHV-N	1.153"	1.175"	82"	0.31"	42 Lbs.	3	Brown	VBHSC-18-1153-EHVN
HSC-1176-EHV-N	1.176"	1.208"	82"	0.31"	42 Lbs.	3	Orange	VBHSC-18-1176-EHVN
HSC-1209-EHV-N	1.209"	1.226"	82"	0.365"	33 Lbs.	2	Purple	VBHSC-18-1209-EHVN
HSC-1227-EHV-N	1.227"	1.259"	88"	0.365"	34 Lbs.	2	Red	VBHSC-18-1227-EHVN
HSC-1260-EHV-N	1.26"	1.286"	88"	0.365"	36 Lbs.	2	Blue	VBHSC-18-1260-EHVN
HSC-1287-EHV-N	1.287"	1.314"	88"	0.365"	36 Lbs.	2	Green	VBHSC-18-1287-EHVN
HSC-1315-EHV-N	1.315"	1.355"	88"	0.365"	37 Lbs.	2	Yellow	VBHSC-18-1315-EHVN
HSC-1356-EHV-N	1.356"	1.394"	88"	0.365"	41 Lbs.	2	Black	VBHSC-18-1356-EHVN
HSC-1395-EHV-N	1.395"	1.416"	88"	0.365"	42 Lbs.	2	White	VBHSC-18-1395-EHVN
HSC-1417-EHV-N	1.417"	1.442"	88"	0.365"	42 Lbs.	2	Brown	VBHSC-18-1417-EHVN
HSC-1443-EHV-N	1.443"	1.477"	88"	0.365"	42 Lbs.	2	Orange	VBHSC-18-1443-EHVN
HSC-1478-EHV-N	1.478"	1.516"	88"	0.365"	42 Lbs.	2	Purple	VBHSC-18-1478-EHVN
HSC-1517-EHV-N	1.517"	1.557"	88"	0.365"	42 Lbs.	2	Red	VBHSC-18-1517-EHVN
HSC-1558-EHV-N	1.558"	1.579"	88"	0.365"	26 Lbs.	1	Blue	VBHSC-18-1558-EHVN
HSC-1580-EHV-N	1.58"	1.612"	100"	0.365"	27 Lbs.	1	Green	VBHSC-18-1580-EHVN
HSC-1613-EHV-N	1.613"	1.65"	100"	0.365"	27 Lbs.	1	Yellow	VBHSC-18-1613-EHVN
HSC-1651-EHV-N	1.651"	1.688"	100"	0.365"	28 Lbs.	1	Black	VBHSC-18-1651-EHVN
HSC-1689-EHV-N	1.689"	1.711"	100"	0.365"	28 Lbs.	1	White	VBHSC-18-1689-EHVN
HSC-1712-EHV-N	1.712"	1.752"	100"	0.365"	28 Lbs.	1	Brown	VBHSC-18-1712-EHVN
HSC-1753-EHV-N	1.753"	1.79"	100"	0.365"	28 Lbs.	1	Orange	VBHSC-18-1753-EHVN
HSC-1791-EHV-N	1.791"	1.828"	100"	0.365"	28 Lbs.	1	Purple	VBHSC-18-1791-EHVN
HSC-1829-EHV-N	1.829"	1.882"	100"	0.365"	28 Lbs.	1	Red	VBHSC-18-1829-EHVN





Fitting Options:

- 52-3/5 socket = "-S"
- Rotated y-clevis eye = "-RYCI"
- Straight clevis eye fitting = "-C"

Conductor Notes:

- For use on AAAC, AAC, ACSR, compacted ACSR, ACSS, and ACSS/ TW
- For high temperature conductors such as ACSS, ACCR, etc., add "-HT" as a suffix to the catalog #

Application Notes:

- Designed for line angles between 30° - 60°
- Slip load is rated for 10-20% of conductor RBS
- Designs are for HV applications \leq 230kV

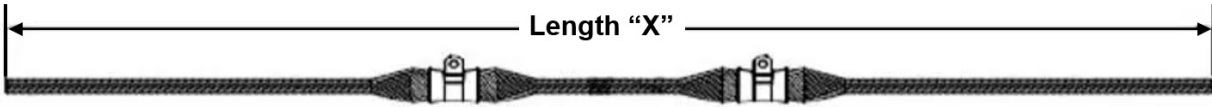
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TRANSMISSION CONDUCTOR HARDWARE SUSPENSION CLAMPS

DHSC Series Double Helical Clamps

CATALOG NUMBER	COND. MIN.	COND. MAX.	LENGTH "X"	ROD DIA.	STD PACK	STD PACK WEIGHT	COLOR CODE
DHSC-0543-N	0.543"	0.555"	44"	0.182"	7	41 Lbs.	Black
DHSC-0556-N	0.556"	0.573"	44"	0.182"	7	42 Lbs.	White
DHSC-0574-N	0.574"	0.594"	45"	0.182"	7	42 Lbs.	Brown
DHSC-0595-N	0.595"	0.606"	46"	0.182"	7	42 Lbs.	Orange
DHSC-0607-N	0.607"	0.619"	46"	0.182"	7	42 Lbs.	Purple
DHSC-0620-N	0.62"	0.645"	50"	0.204"	7	45 Lbs.	Red
DHSC-0646-N	0.646"	0.673"	54"	0.204"	5	39 Lbs.	Blue
DHSC-0674-N	0.674"	0.69"	54"	0.204"	5	39 Lbs.	Green
DHSC-0691-N	0.691"	0.71"	54"	0.204"	5	40 Lbs.	Yellow
DHSC-0711-N	0.711"	0.731"	55"	0.204"	5	40 Lbs.	Black
DHSC-0732-N	0.732"	0.75"	56"	0.25"	5	40 Lbs.	White
DHSC-0751-N	0.751"	0.768"	60"	0.25"	3	35 Lbs.	Brown
DHSC-0769-N	0.769"	0.795"	60"	0.25"	3	36 Lbs.	Orange
DHSC-0796-N	0.796"	0.824"	61"	0.25"	3	36 Lbs.	Purple
DHSC-0825-N	0.825"	0.845"	64"	0.25"	3	36 Lbs.	Red
DHSC-0846-N	0.846"	0.87"	64"	0.25"	3	36 Lbs.	Blue
DHSC-0871-N	0.871"	0.893"	65"	0.25"	3	38 Lbs.	Green
DHSC-0894-N	0.894"	0.907"	65"	0.25"	3	38 Lbs.	Green
DHSC-0908-N	0.908"	0.92"	66"	0.25"	3	44 Lbs.	Yellow
DHSC-0921-N	0.921"	0.937"	66"	0.25"	3	44 Lbs.	Black
DHSC-0938-N	0.938"	0.962"	67"	0.25"	3	44 Lbs.	White
DHSC-0963-N	0.963"	0.986"	68"	0.25"	3	45 Lbs.	Brown
DHSC-0987-N	0.987"	1.005"	69"	0.25"	3	45 Lbs.	Orange





Fitting Options:

- 52-3/5 socket = "-S"
- Rotated y-clevis eye = "-RYCI"
- Straight clevis eye fitting = "-C"

Application Notes:

- "-EHV" suffix designates these HSC as EHV designs for use at 345kV and above (also applicable at HV voltages)
- For high temp application, add suffix "-HT"

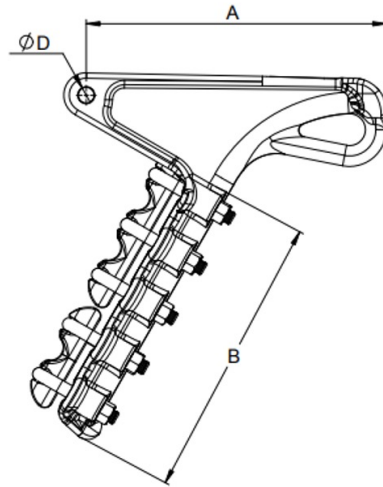
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TRANSMISSION CONDUCTOR HARDWARE SUSPENSION CLAMPS

DHSC Series EHV Double Helical Clamps

CATALOG NUMBER	COND. MIN.	COND. MAX.	LENGTH "X"	ROD DIA.	STD PACK	STD PACK WEIGHT	COLOR CODE
DHSC-1006-EHV-N	1.006"	1.022"	78"	0.31"	2	43 Lbs.	Purple
DHSC-1023-EHV-N	1.023"	1.04"	78"	0.31"	2	43 Lbs.	Red
DHSC-1041-EHV-N	1.041"	1.074"	78"	0.31"	2	44 Lbs.	Blue
DHSC-1075-EHV-N	1.075"	1.09"	78"	0.31"	2	45 Lbs.	Green
DHSC-1091-EHV-N	1.091"	1.118"	78"	0.31"	22	45 Lbs.	Yellow
DHSC-1119-EHV-N	1.119"	1.136"	78"	0.31"	2	45 Lbs.	Black
DHSC-1137-EHV-N	1.137"	1.152"	82"	0.31"	2	45 Lbs.	White
DHSC-1153-EHV-N	1.153"	1.175"	82"	0.31"	2	45 Lbs.	Brown
DHSC-1176-EHV-N	1.176"	1.208"	82"	0.365"	2	45 Lbs.	Orange
DHSC-1209-EHV-N	1.209"	1.226"	88"	0.365"	1	27 Lbs.	Purple
DHSC-1227-EHV-N	1.227"	1.259"	88"	0.365"	1	27 Lbs.	Red
DHSC-1260-EHV-N	1.26"	1.286"	88"	0.365"	1	29 Lbs.	Blue
DHSC-1287-EHV-N	1.287"	1.314"	88"	0.365"	1	29 Lbs.	Green
DHSC-1315-EHV-N	1.315"	1.355"	88"	0.365"	1	29 Lbs.	Yellow
DHSC-1356-EHV-N	1.356"	1.394"	88"	0.365"	1	33 Lbs.	Black
DHSC-1395-EHV-N	1.395"	1.416"	88"	0.365"	1	34 Lbs.	White
DHSC-1417-EHV-N	1.417"	1.442"	88"	0.365"	1	34 Lbs.	Brown
DHSC-1443-EHV-N	1.443"	1.477"	88"	0.365"	1	34 Lbs.	Orange
DHSC-1478-EHV-N	1.478"	1.516"	88"	0.365"	1	34 Lbs.	Purple
DHSC-1517-EHV-N	1.517"	1.557"	88"	0.365"	1	34 Lbs.	Red
DHSC-1558-EHV-N	1.558"	1.579"	88"	0.365"	1	45 Lbs.	Blue
DHSC-1580-EHV-N	1.58"	1.612"	100"	0.365"	1	45 Lbs.	Green
DHSC-1613-EHV-N	1.613"	1.65"	100"	0.365"	1	45 Lbs.	Yellow
DHSC-1651-EHV-N	1.651"	1.688"	100"	0.365"	1	46 Lbs.	Black
DHSC-1689-EHV-N	1.689"	1.711"	100"	0.365"	1	46 Lbs.	White
DHSC-1712-EHV-N	1.712"	1.752"	100"	0.365"	1	46 Lbs.	Brown
DHSC-1753-EHV-N	1.753"	1.79"	100"	0.365"	1	46 Lbs.	Orange
DHSC-1791-EHV-N	1.791"	1.828"	100"	0.365"	1	46 Lbs.	Purple
DHSC-1829-EHV-N	1.829"	1.882"	100"	0.365"	1	46 Lbs.	Red





Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Fitting Notes:

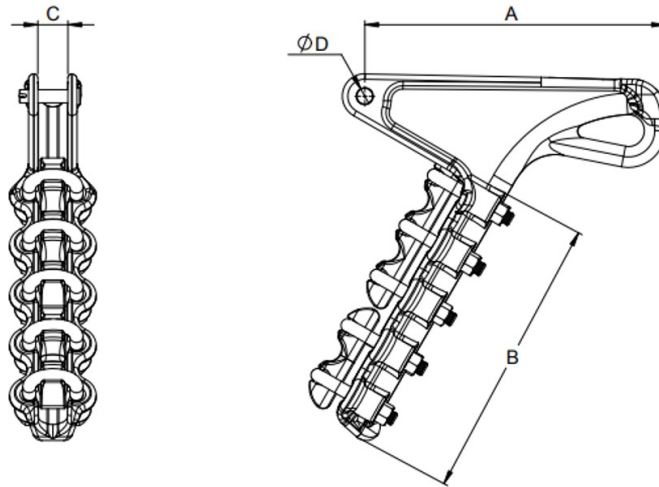
- "N" suffix indicates no fitting
- Socket applications - connection to Insulator ball fittings
 - "-S" suffix for ANSI 52-3 / 52-5 socket eye fitting
 - "-S8" suffix for ANSI 52-8 / 52-11 socket eye fitting
- Clevis applications - connection to yoke plate bracket
 - "-C" suffix for straight clevis eye fitting
 - 90° clevis eye also available upon request

Application Notes:

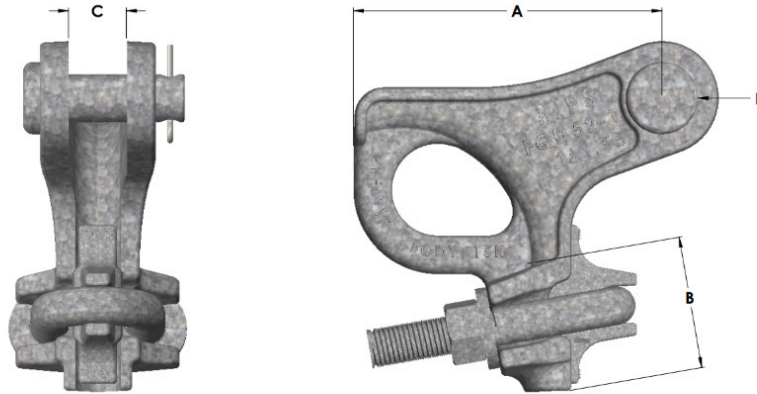
- ADE clamps used on ACSR & ACAR conductor
- Add suffix "-SPH" for 345kV application (includes 2 sphere nuts)
- Add suffix "-SPH4" for 500kV application (includes 4 sphere nuts)
- Recommended torque:
 - 1/2" u-bolts = 40-45 ft-lbs
 - 5/8" u-bolts = 65-70 ft-lbs.
- For bolt, nut, and cotter, add suffix "-BC" to the catalog #
- Rated slip strength (RSS) is typically expressed as a percentage of the conductor's rated breaking strength (RBS), and it varies with cable size and stranding because these factors affect surface area, friction, and mechanical behavior under load
- Minimum slip strength of this clamp series is 40% rbs (partial tension)
- Minimum slip strength of this clamp series is 60% rbs (normal tension)

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CATALOG NUMBER	COND. RANGE MIN.	COND. RANGE MAX.	U-BOLT NO.	U-BOLT SIZE	CLAMP DIMENSIONS				OPTIONAL FITTINGS		ULTIMATE STRENGTH	WEIGHT/ 100
					A	B	C	D	SOCKET (-S)	CLEVIS (-C)		
ADE-21-N	0.2"	0.64"	2	0.5"	9.56"	6.06"	1"	0.63"	S1-875	SE-55-875	15,000 Lbs.	400 Lbs.
ADE-22-N	0.3"	0.75"	4	0.5"	10"	9.5"	1"	0.63"	S1-875	SE-55-875	20,000 Lbs.	599 Lbs.
ADE-23-N	0.46"	0.94"	4	0.5"	12.94"	10.75"	1"	0.63"	S1-875	SE-55-875	23,000 Lbs.	916 Lbs.
ADE-24-N	0.5"	1.2"	5	0.5"	12.25"	14.25"	1.25"	0.63"	SI-1125	SCE-56-1125	27,000 Lbs.	1150 Lbs.
ADE-2526-N	0.7"	1.4"	5	0.63"	14.31"	13.69"	1.5"	0.75"	SI-1375-6	SCE-56-1375	30,000 Lbs.	1473 Lbs.
ADE-27-CE-N	1"	1.85"	5	0.63"	16.75"	14.5"	2"	0.75"	SE-1625-6	SCE-56-1750	45,000 Lbs.	2150 Lbs.
ADE-28-NBC	1.3"	2"	6	0.63"	18.94"	17"	2.38"	0.88"	SE-2000-7	-	60,000 Lbs.	2400 Lbs.



CATALOG NUMBER	COND. RANGE MIN.	COND. RANGE MAX.	U-BOLT NO.	U-BOLT SIZE	CLAMP DIMENSIONS				OPTIONAL FITTINGS		ULTIMATE STRENGTH	WEIGHT/ 100
					A	B	C	D	SOCKET (-S)	CLEVIS (-C)		
FQD-52-1	0.16"	0.55"	1	0.5"	4"	1.75"	0.69"	0.63"	SI-625	SCE-55-625	15,000 Lbs.	200 Lbs.
FQD-58-2	0.18"	0.58"	2	0.5"	5"	3"	0.88"	0.63"	SI-625	SCE-55-625	20,000 Lbs.	350 Lbs.
FQD-58-3	0.18"	0.58"	3	0.5"	5"	4.63"	0.88"	0.63"	SI-625	SCE-55-625	20,000 Lbs.	470 Lbs.
FQD-68-3	0.2"	0.68"	3	0.5"	7.5"	4.88"	0.81"	0.63"	SI-750	SCE-55-875	25,000 Lbs.	920 Lbs.
FQD-84-4	0.3"	0.84"	4	0.5"	9.81"	9.5"	1"	0.63"	SI-750	SCE-55-875	30,000 Lbs.	957Lbs.

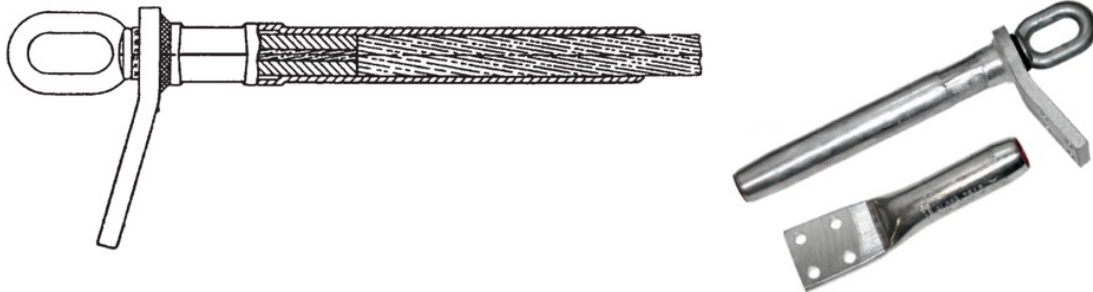
Material:

- Body & keeper - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- This clamp can be used to hold galvanized steel and copper conductors

Standard Design for ACSR Conductors - Max. Operating Temperature: 100° C



CODE NAME	ACSR CONDUCTOR			SINGLE TONGUE APPLICATION			TERMINAL OPTIONS		
	SIZE	STRAND	OD	VERTICAL EYE	HORIZONTAL EYE	DIE SIZE	0°	15°	90°
Flamingo	666.6	24/7	1.000"	VES115	HES115	11CD	TS11	TF11	TN11
Condor	795.5	54/7	1.092"	VES125	HES125	12CD	TS12	TF12	TN12
Drake	795.5	26/7	1.108"	VES126	HES126	12CD	TS12	TF12	TN12
Rail	954.0	45/7	1.165"	VES133	HES133	13CD	TS13	TF13	TN13
Cardinal	954.0	54/7	1.196"	VES135	HES135	13CD	TS13	TF13	TN13
Bittern	1272.0	45/7	1.345"	VES153	HES153	15CD	TS15	TF15	TN15
Pheasant	1272.0	54/19	1.382"	VES155	HES155	15CD	TS15	TF15	TN15
Lapwing	1590.0	45/7	1.502"	VES164	HES164	16CD	TS16	TF16	TN16
Falcon	1590.0	54/19	1.545"	VES175	HES175	17CD	TS17	TF17	TN17
Chukar	1780.0	84/19	1.602"	VES174	HES174	17CD	TS17	TF17	TN17
Bluebird	2156.0	84/19	1.762"	VES194	HES194	19CD	TS19	TF19	TN19

Quick Compress Features:

- Installs in 40% less time
- One-piece core grip
- Steel eye oriented and installed at the factory
- Factory pre-filled filler compound

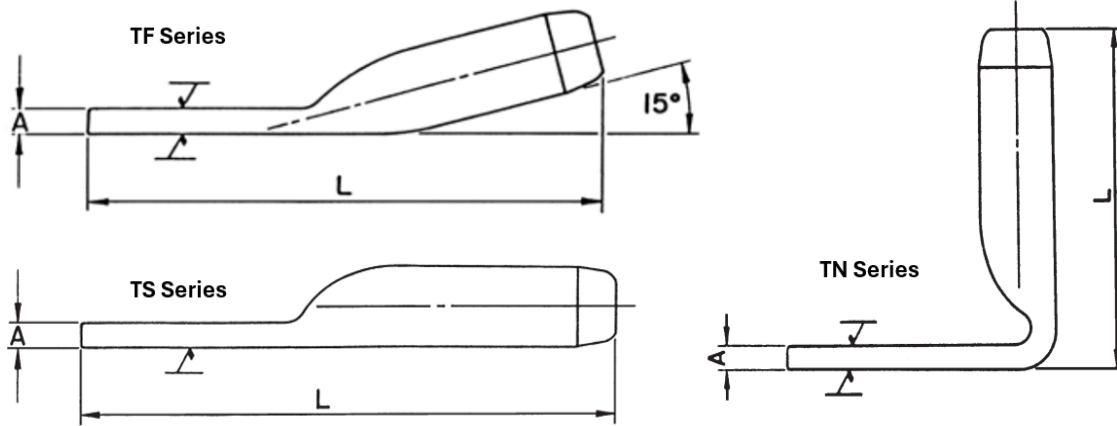
Application Notes:

- Quick compress accessories are designed for a maximum conductor operating temperature of 100°C (212°F)

Application Notes:

- For applications exceeding 100°C (212°F) operating temperature, see the standard and HiTemp® compression accessories sections
- For use with ACSR, AAC, AAAC, and ACAR conductors
- Eye termination is shown in the vertical orientation (VES)
- For EHV finish, add "EHV" suffix to the catalog number
- Quick compress additional design options
- Double tongue [VED / HED]
- Adjustable eye - single tongue [AES]
- For additional design options and installation instructions - contact transmission@macleanpower.com

Standard Design for ACSR Conductors



CODE NAME	ACSR / CONDUCTOR					15° TERMINAL				0° TERMINAL				90° TERMINAL			
	SIZE	STRAND	OD	DIE SIZE	PAD SIZE	CATALOG NUMBER	A	L	WEIGHT	CATALOG NUMBER	A	L	WEIGHT	CATALOG NUMBER	A	L	WEIGHT
Flamingo	666.6	24/7	1.000"	11CD	D	TF11	0.4"	10.4"	1.5 Lbs.	TS11	0.4"	11.7"	1.5 Lbs.	TN11	0.4"	7.5"	1.4 Lbs.
Condor	795.5	54/7	1.093"	12CD	D	TF12	0.4"	11"	1.9 Lbs.	TS12	0.4"	12.1"	1.8 Lbs.	TN12	0.4"	7.9"	1.8 Lbs.
Drake	795.5	26/7	1.108"	12CD	D	TF12	0.4"	11"	1.9 Lbs.	TS12	0.4"	12.1"	1.8 Lbs.	TN12	0.4"	7.9"	1.8 Lbs.
Rail	954.0	45/7	1.165"	13CD	D	TF13	0.5"	11.2"	2.2 Lbs.	TS13	0.5"	12.8"	2.1 Lbs.	TN13	0.5"	8.5"	2.2 Lbs.
Cardinal	954.0	54/7	1.196"	13CD	D	TF13	0.5"	11.2"	2.2 Lbs.	TS13	0.5"	12.8"	2.1 Lbs.	TN13	0.5"	8.5"	2.2 Lbs.
Bittern	1272.0	45/7	1.345"	15CD	D	TF15	0.7"	12.5"	3.2 Lbs.	TS15	0.7"	14.3"	3.3 Lbs.	TN15	0.7"	9.8"	3.1 Lbs.
Pheasant	1272.0	54/19	1.382"	15CD	D	TF15	0.7"	12.5"	3.2 Lbs.	TS15	0.7"	14.3"	3.3 Lbs.	TN15	0.7"	9.8"	3.1 Lbs.
Lapwing	1590.0	45/7	1.502"	16CD	D	TF16	0.7"	13.3"	3.7 Lbs.	TS16	0.7"	14.6"	3.8 Lbs.	TN16	0.7"	10.2"	3.7 Lbs.
Falcon	1590.0	54/19	1.545"	17CD	E	TF17	0.7"	14.4"	4.6 Lbs.	TS17	0.7"	16.3"	4.7 Lbs.	TN17	0.7"	11.2"	4.5 Lbs.
Chukar	1780.0	84/19	1.602"	17CD	E	TF17	0.7"	14.4"	4.6 Lbs.	TS17	0.7"	16.3"	4.7 Lbs.	TN17	0.7"	11.2"	4.5 Lbs.
Bluebird	2156.0	84/19	1.762"	19CD	E	TF19	0.9"	15.7"	6.3 Lbs.	TS19	0.9"	17.5"	6.5 Lbs.	TN19	0.9"	11.9"	6.1 Lbs.

MACLEAN POWER SYSTEMS
ALABASTER, ALABAMA PLANT



TRANSMISSION CONDUCTOR HARDWARE DEADEND CLAMPS

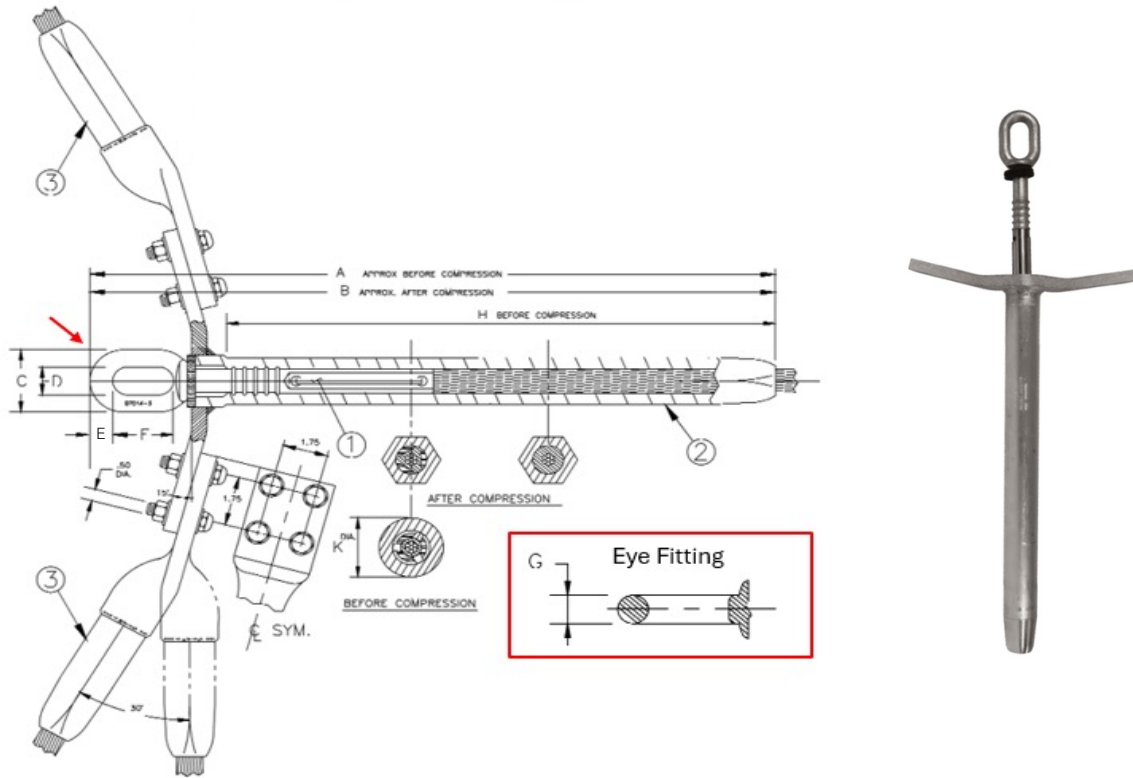
SDES - Solo HD Single Tongue
Single Die Compression Deadend

High Temperature Design for ACSR & ACSS Conductors: Max. Operating Temperature: 250°C

ACSR / ACSS CONDUCTOR				MAX OPERATING TEMP: 250°C			DIMENSIONS										WEIGHT
CODE NAME	SIZE	STRAND	OD	CATALOG NUMBER	15° TERMINAL	DIE SIZE	A	B	C	D	E	F	G	H	K		
Flamingo	666.6	24/7	1.000"	SDES-AS135HT	5127,106HTP	27AH	21.66"	24.31"	2.25"	1"	0.62"	2"	0.62"	17"	1.688"	8.0 Lbs.	
Gannet	666.6	26/7	1.014"	SDES-AS183HT	5127,109HTP	27AH	21.66"	24.31"	2.25"	1"	0.62"	2"	0.62"	17"	1.688"	8.0 Lbs.	
Condor	795.5	54/7	1.093"	SDES-AS141HT	5130,116HTP	30AH	22.72"	25.52"	2.25"	1"	0.62"	2"	0.62"	18"	1.875"	9.7 Lbs.	
Drake	795.5	26/7	1.108"	SDES-AS142HT	5130,122HTP	30AH	22.69"	25.44"	2.25"	1"	0.62"	2"	0.62"	18.09"	1.875"	9.6 Lbs.	
Rail	954.0	45/7	1.165"	SDES-AS148HT	5130,122HTP	30AH	23.69"	26.47"	2.80"	1.25"	0.78"	2.5"	0.78"	17.91"	1.875"	10.8 Lbs.	
Cardinal	954.0	54/7	1.196"	SDES-AS150HT	5130,125HTP	30AH	28.16"	31.25"	2.8"	1.25"	0.78"	2.5"	0.78"	22.28"	1.875"	10.8 Lbs.	
Bittern	1272.0	45/7	1.345"	SDES-AS161HT	5136,144HTP	36AH	25.52"	28.62"	2.8"	1.25"	0.78"	2.5"	0.78"	19.69"	2.25"	14.8 Lbs.	
Pheasant	1272.0	54/19	1.382"	SDES-AS163HT	5136,147HTP	36AH	26.84"	30.12"	2.8"	1.25"	0.78"	2.5"	0.78"	21"	2.25"	15.2 Lbs.	
Lapwing	1590.0	45/7	1.502"	SDES-AS173HT	5140,162HTP	40AH	28.16"	31.59"	3.12"	1.25"	0.94"	2.5"	0.94"	22"	2.5"	21.4 Lbs.	
Falcon	1590.0	54/19	1.545"	SDES-AS174HT	5140,162HTP	40AH	29.06"	32.62"	3.12"	1.25"	0.94"	2.5"	0.94"	22.88"	2.5"	22.0 Lbs.	
Chukar	1780.0	84/19	1.602"	SDES-AS175HT	5142,178HTP	42AH	28.75"	32.28"	3.12"	1.25"	0.94"	2.5"	0.94"	22.68"	2.625"	23.3 Lbs.	
Bluebird	2156.0	84/19	1.762"	SDES-AS178HT	5144,188HTP	44AH	31.31"	35.03"	3.7"	1.5"	1.1"	3"	1.1"	23.91"	2.750"	29.1 Lbs.	



High Temperature Design for ACSR & ACSS Conductors: Max. Operating Temperature: 250°C



Item Notes:

- Eye deadend - steel eye fitting, felt washer, stainless steel core grip with aluminum lobes and insert sleeve
- Deadend body - aluminum barrel and tongue
- Terminal - aluminum body and steel hardware [terminal is factory filled with compound]

Application Notes:

- For use with ACSR, ACSS, ACSS/TW conductors
- Maximum operating / emergency temperature: 250°C
- Eye termination is set as default connection
- For EHV finish, add "EHV" suffix to the end of the catalog number - SDED-AS142HTEHV
- For compression DE less terminal, add "NT" suffix after "HT" - SDED-AS142HTNT
- Designed for full tension use, minimum of 95% of the ASTM rated strength of conductor
- For installation instructions - contact transmission@macleanpower.com

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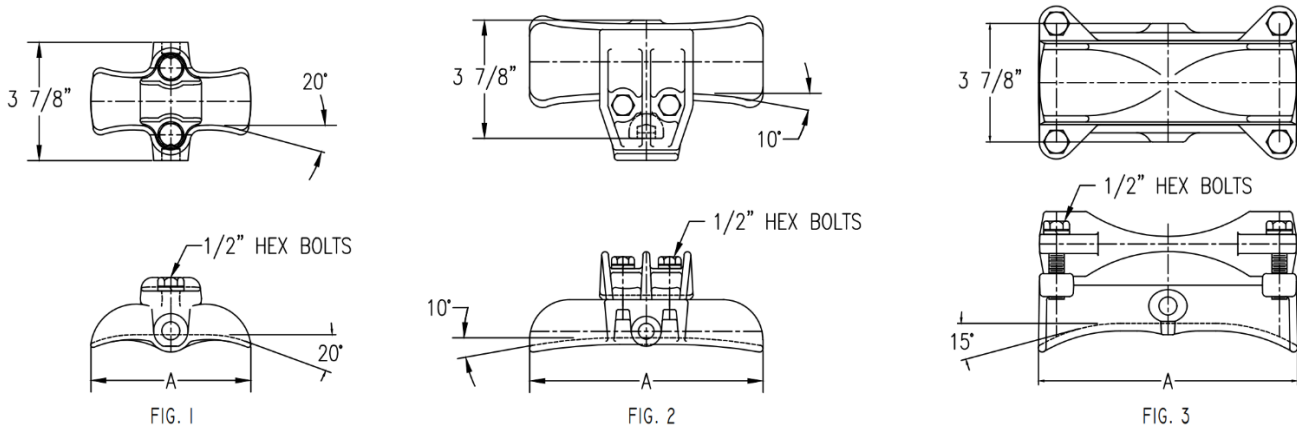
TRANSMISSION CONDUCTOR HARDWARE DEADEND CLAMPS

**SDED - Solo HD Double Tongue
Single Die Compression Deadend**

High Temperature Design for ACSR & ACSS Conductors: Max. Operating Temperature: 250°C

ACSR / ACSS CONDUCTOR				MAX OPERATING TEMP: 250°C			DIMENSIONS										WEIGHT
CODE NAME	SIZE	STRAND	OD	CATALOG NUMBER	15° TERMINAL	DIE SIZE	A	B	C	D	E	F	G	H	K		
Flamingo	666.6	24/7	1.000"	SDED-AS135HT	5127,106HTP	27AH	21.66"	24.31"	2.25"	1"	0.62"	2"	0.62"	17"	1.688"	11.4 Lbs.	
Gannet	666.6	26/7	1.014"	SDED-AS183HT	5127,109HTP	27AH	21.66"	24.31"	2.25"	1"	0.62"	2"	0.62"	17"	1.688"	11.4 Lbs.	
Condor	795.5	54/7	1.093"	SDED-AS141HT	5130,116HTP	30AH	22.72"	25.52"	2.25"	1"	0.62"	2"	0.62"	18"	1.875"	14.1 Lbs.	
Drake	795.5	26/7	1.108"	SDED-AS142HT	5130,122HTP	30AH	22.69"	25.44"	2.25"	1"	0.62"	2"	0.62"	18.09"	1.875"	14.0 Lbs.	
Rail	954.0	45/7	1.165"	SDED-AS148HT	5130,122HTP	30AH	23.69"	26.47"	2.8"	1.25"	0.78"	2.5"	0.78"	17.91"	1.875"	15.0 Lbs.	
Cardinal	954.0	54/7	1.196"	SDED-AS150HT	5130,125HTP	30AH	28.16"	31.25"	2.8"	1.25"	0.78"	2.5"	0.78"	22.28"	1.875"	15.0 Lbs.	
Bittern	1272.0	45/7	1.345"	SDED-AS161HT	5136,144HTP	36AH	25.52"	28.62"	2.8"	1.25"	0.78"	2.5"	0.78"	19.69"	2.25"	20.6 Lbs.	
Pheasant	1272.0	54/19	1.382"	SDED-AS163HT	5136,147HTP	36AH	26.84"	30.12"	2.8"	1.25"	0.78"	2.5"	0.78"	21"	2.25"	21.0 Lbs.	
Lapwing	1590.0	45/7	1.502"	SDED-AS173HT	5140,162HTP	40AH	28.16"	31.59"	3.12"	1.25"	0.94"	2.5"	0.94"	22"	2.5"	30.0 Lbs.	
Falcon	1590.0	54/19	1.545"	SDED-AS174HT	5140,162HTP	40AH	29.06"	32.62"	3.12"	1.25"	0.94"	2.5"	0.94"	22.88"	2.5"	30.6 Lbs.	
Chukar	1780.0	84/19	1.602"	SDED-AS175HT	5142,178HTP	42AH	28.75"	32.28"	3.12"	1.25"	0.94"	2.5"	0.94"	22.68"	2.625"	31.1 Lbs.	
Bluebird	2156.0	84/19	1.762"	SDED-AS178HT	5144,188HTP	44AH	31.31"	35.03"	3.7"	1.5"	1.1"	3"	1.1"	23.91"	2.750"	38.0 Lbs.	





CATALOG NUMBER	FIG	A	COND. RANGE MIN.	COND. RANGE MAX.	WEIGHT/ 100
ACTS-057	1	5.25"	0.23"	0.57"	82 Lbs.
ACTS-084	1	5.25"	0.35"	0.84"	95 Lbs.
ACTS-118	1	5.25"	0.5"	1.18"	117 Lbs.
ACTS-150	1	5.25"	0.93"	1.5"	127 Lbs.
ACTS-200	1	6.5"	1.5"	2"	225 Lbs.
ACTS-230	2	8.75"	1.9"	2.3"	242 Lbs.
ACTS-270	3	8.5"	2"	2.7"	275 Lbs.

Item Notes:

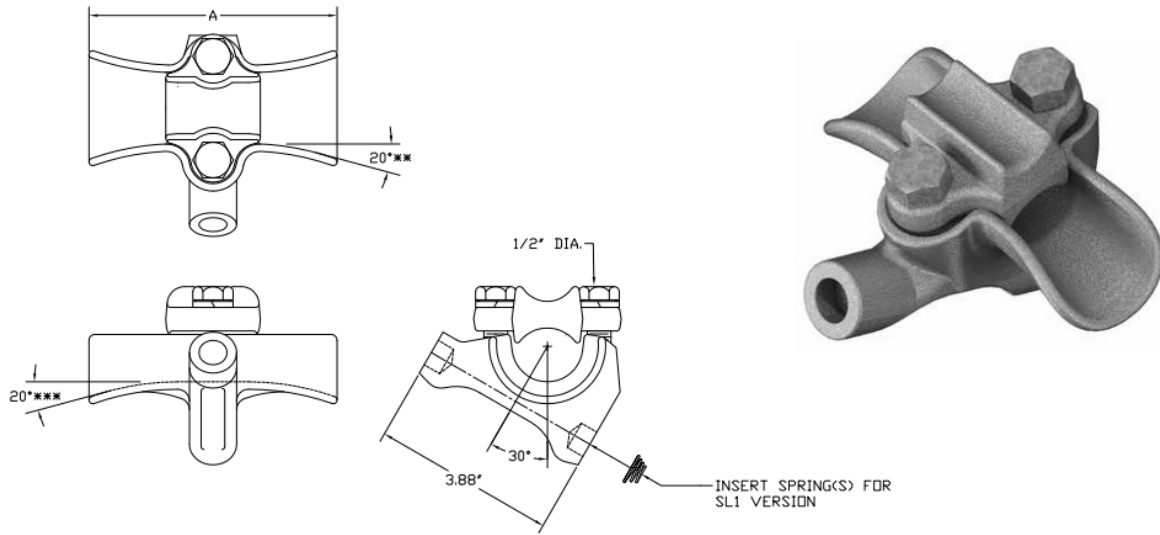
- Body & keeper: aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Spring- stainless steel

Application Notes:

- For spring in one trunnion, add suffix "-SL1"
- For spring in both trunnions, add suffix "-SL2"
- For stainless steel hardware, add suffix "-SS"

TRANSMISSION CONDUCTOR HARDWARE TRUNNION CLAMP

ACP Series Angle Trunnion Clamp



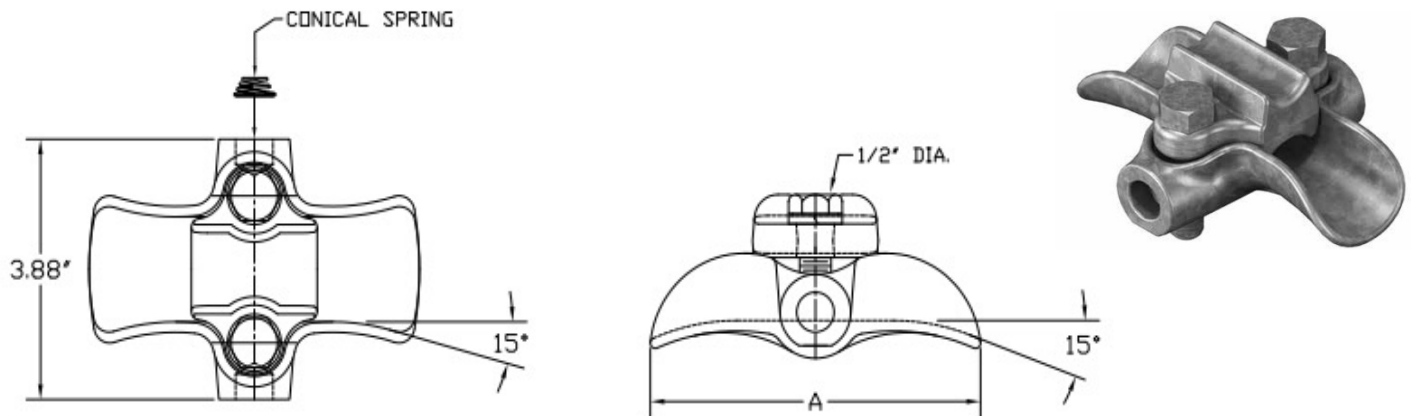
CATALOG NUMBER	A	COND. RANGE MIN.	COND. RANGE MAX.	WEIGHT/ 100
ACP-057	5.25"	0.23"	0.57"	82 Lbs.
ACP-084	5.25"	0.35"	0.84"	95 Lbs.
ACP-118	5.25"	0.5"	1.18"	117 Lbs.
ACP-150	5.25"	0.93"	1.5"	127 Lbs.
ACP-165	5.75"	1"	1.65"	225 Lbs.
ACP-200	6.50"	1.5"	2"	225 Lbs.

Item Notes:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Spring - stainless steel

Application Notes:

- For spring in one trunnion, add suffix "-SL1"
- For spring in both trunnions, add suffix "-SL2"
- For stainless steel hardware, add suffix "-SS"



BRONZE TRUNNION CLAMPS - CLAMP BODY AND KEEPER - BRONZE

CATALOG NUMBER	A	COND. RANGE MIN.	COND. RANGE MAX.	WEIGHT/ 100
LPS-57-B	5.13"	0.25"	0.57"	232 Lbs.
LPS-86-B	5.25"	0.35"	0.88"	232 Lbs.

DUCTILE IRON TRUNNION CLAMPS

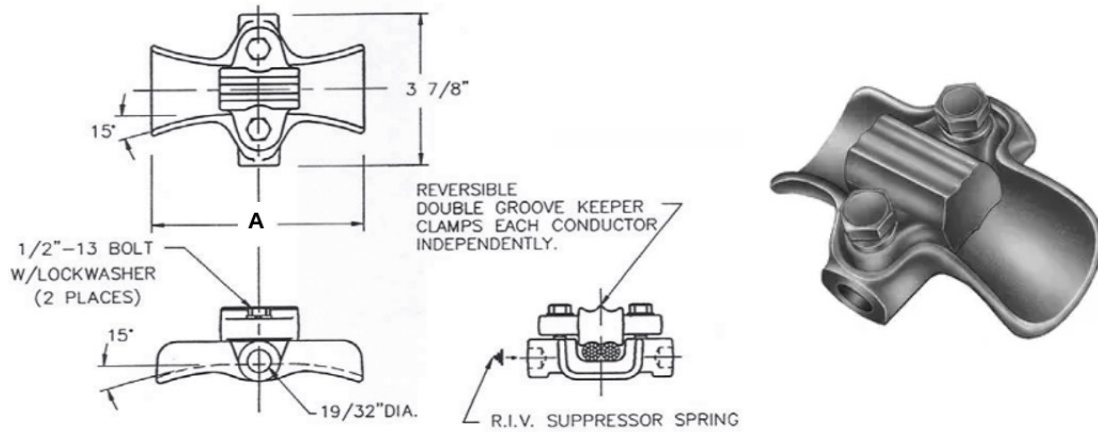
CATALOG NUMBER	A	COND. RANGE MIN.	COND. RANGE MAX.	WEIGHT/ 100
LPS-57-F	5.13"	0.25"	0.57"	221 Lbs.
FCTS-084	5.25"	0.35"	0.86"	203 Lbs.
LPS-118-F	5.5"	0.5"	1.18"	155 Lbs.
FCTS-150	5.25"	0.93"	1.5"	235 Lbs.

Material:

- Body & keeper - ductile iron
 - Hardware - steel, hot-dipped galvanized
 - Spring - stainless steel
- Body & keeper - high-strength bronze
 - Hardware - high-strength bronze
 - Spring - stainless steel

Application Notes:

- LPS series supplied with spring in one trunnion
- For spring in one trunnion, add suffix "-SL1"
- For spring in both trunnions, add suffix "-SL2"
- For stainless steel hardware, add suffix "-SS"



CATALOG NUMBER	A	COND. RANGE MIN.	COND. RANGE MAX.	WEIGHT/ 100
LPS-T2-4/0	5.25"	0.33"	0.56"	204 Lbs.
LPS-T2-477	5.25"	0.5"	0.88"	300 Lbs.

Material:

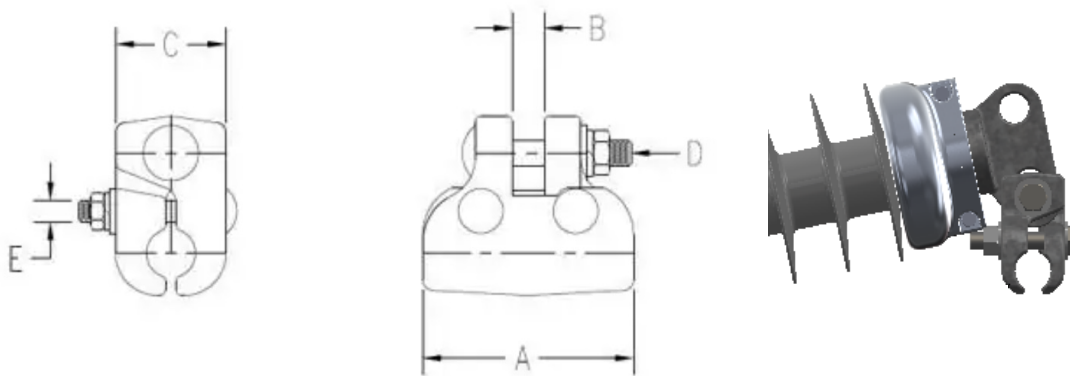
- Body - ductile iron, hot-dipped galvanized
- Keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- RIV suppressor spring - stainless steel

Features:

- Bolts contain captive lock washers
- Recommended for line angles up to 15°
- Recommended torque on keeper bolts: 20-25 ft-lbs
- RIV suppressor spring is installed on one of the trunnions

Application Notes:

- These clamps have a longer support radius for greater protection of the conductor. The keeper is reversible for a closer fit on the conductor
- For stainless steel hardware, add suffix "-SS" to catalog number
- For aluminum body, add suffix "-A" to catalog number



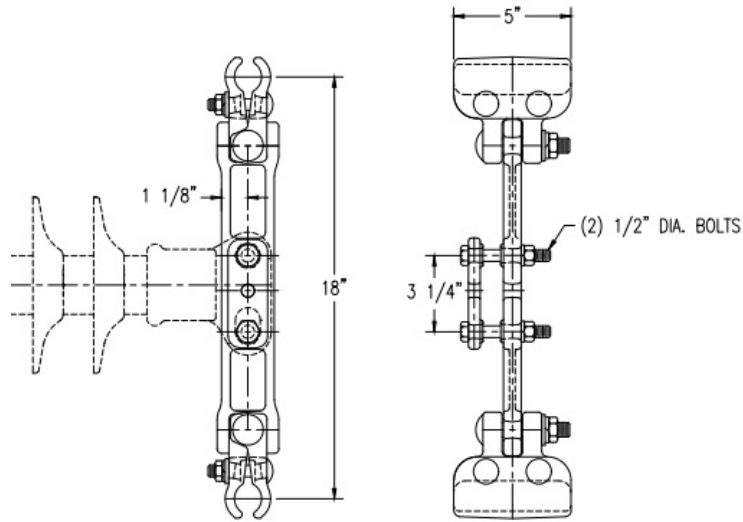
CATALOG NUMBER	CLAMP RANGE MIN.	CLAMP RANGE MAX.	A	B	C	D	E	WEIGHT / 100
LPJC-140	0.9"	1.4"	5"	0.75"	1.63"	0.63"	0.5"	250 Lbs.
LPJC-200	1.4"	2"	5"	0.75"	1.63"	0.63"	0.5"	298 Lbs.
LPJC-225	2"	2.25"	5"	0.75"	1.63"	0.63"	0.5"	304 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized

Application Notes:

- For use on 2.5" & 3.0" line post, applied to drop tongue end fitting
- Horizontal & underhung jumper line post applications (see 2 conductor assembly section for demo)



CATALOG NUMBER	CLAMP RANGE MIN.	CLAMP RANGE MAX.	WEIGHT / 100
LPH3D-18-140	0.9"	1.4"	897 Lbs.
LPH3D-18-200	1.4"	2"	1000 Lbs.
LPH3D-18-225	2"	2.25"	1200 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized

Application Notes:

- For use on 2.5" & 3.0" line post, applied to drop tongue end fitting
- Horizontal & underhung jumper line post applications (see 2 conductor assembly section for demo)
- Mounting hardware supplied with LPH3D clamps



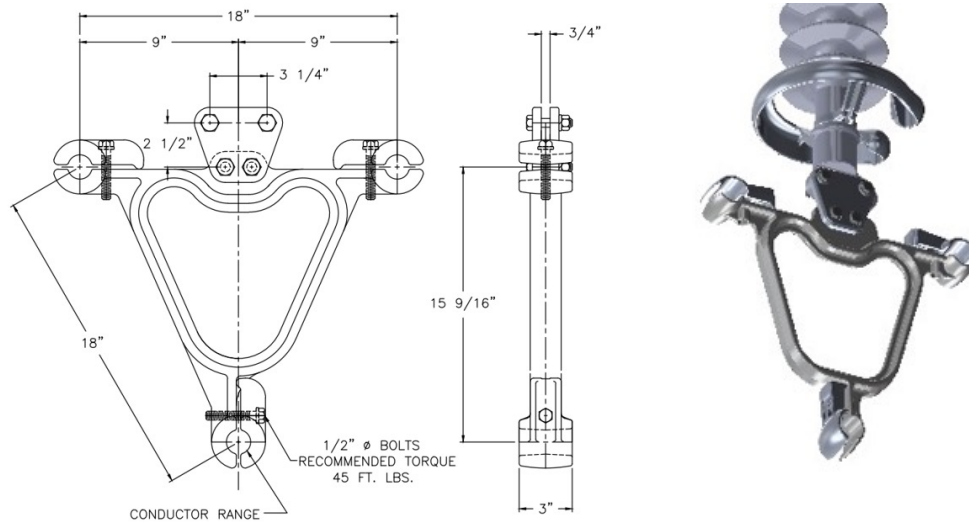
CATALOG NUMBER	CLAMP RANGE MIN.	CLAMP RANGE MAX.
C84091000-W	1.108"	1.504"
C84091762-W	1.545"	2.02"

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized

Application Notes:

- For use with 2 conductor horizontal jumper i-string assemblies
- Weight sets supplied in increments of 100 lbs. (2 x 50 lb. plates mounted on each side of the clamp)
 - W = weight



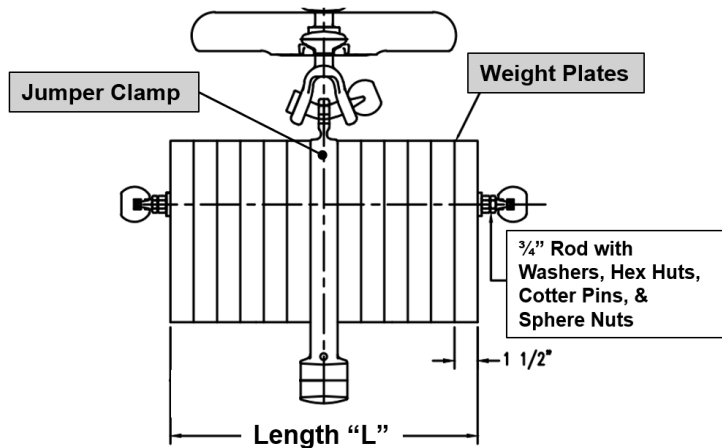
CATALOG NUMBER	CLAMP RANGE MIN.	CLAMP RANGE MAX.	WEIGHT / 100
JY31108	1.108"	1.504"	980 Lbs.
JY31545	1.545"	2.05"	1090 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized

Application Notes:

- For use on 3.0" & 3.5" line post, applied to drop tongue end fitting
 - Can be used with 2.5" LP in an underhung application - not recommended for horizontal application
- For use with 2 conductor horizontal jumper i-string assemblies
- Mounting hardware supplied to attach jumper clamp to the line post insulator



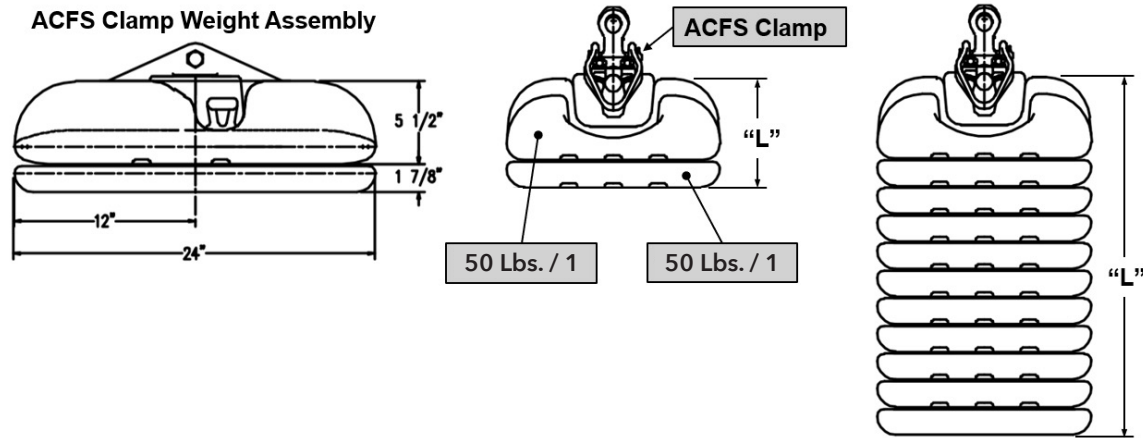
CATALOG NUMBER	CLAMP RANGE MIN.	CLAMP RANGE MAX.
JY31108-W	1.108"	1.504"
JY31545-W	1.545"	2.05"

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized

Application Notes:

- For use with 3 conductor jumper i-string assemblies
- Weight sets supplied in increments of 100 lbs. (2 x 50 lb. plates mounted on each side of the clamp)
 - W = weight
- To have a sphere nut added to the end of the threads on the weight assembly, add suffix "-s" after the weight



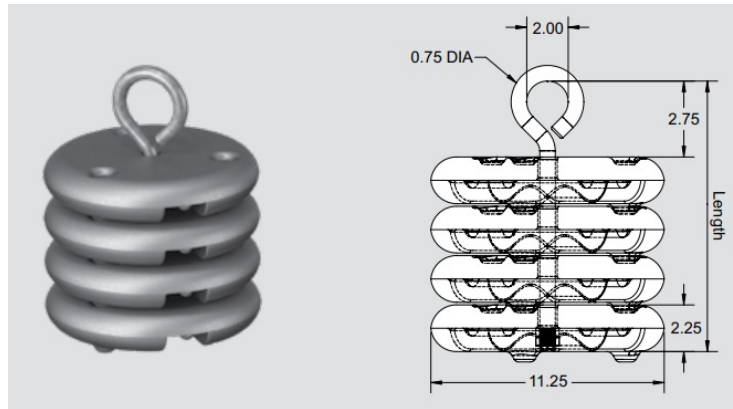
CATALOG NUMBER	WEIGHT CLAMP	NO. OF PLATES	ASSEMBLY LENGTH "L"
WG300P-P0314A	300 Lbs.	0	5.5"
WG450P-P0314A	450 Lbs.	1	7.38"
WG600P-P0314A	600 Lbs.	2	9.25"
WG750P-P0314A	750 Lbs.	3	11.13"
WG900P-P0314A	900 Lbs.	4	13"
WG1050P-P0314A	1050 Lbs.	5	14.88"
WG1200P-P0314A	1200 Lbs.	6	16.75"
WG1350P-P0314A	1350 Lbs.	7	18.63"
WG1500P-P0314A	1500 Lbs.	8	20.5"
WG1650P-P0314A	1650 Lbs.	9	22.38"
WG1800P-P0314A	1800 Lbs.	10	24.25"

Material:

- Weights - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized

Application Notes:

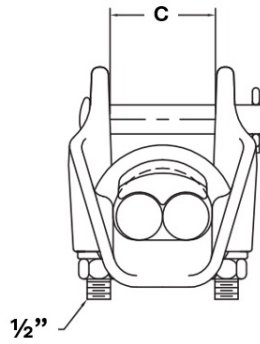
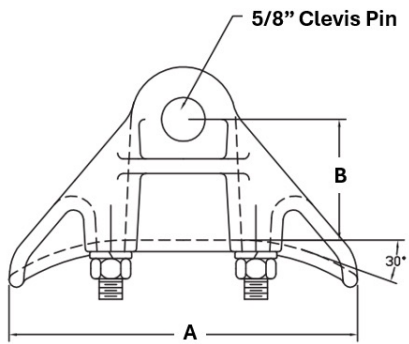
- Used with ACFS suspension clamps
- Catalog numbers shown are for ACFS-271-19-23 as an example
- Additional clamp sizes include: ACFS-180-11-20, ACFS-138-13-15, ACFS-114-19-25 & ACFS-114-26-30



CATALOG NUMBER	LENGTH	ASSEMBLY WEIGHT	NO. OF WEIGHTS PER ASSEMBLY
C-6887-50	5"	50 lbs.	1
C-6887-100	7.38"	100 lbs.	2
C-6887-150	9.75"	150 lbs.	3
C-6887-200	12.13"	200 lbs.	4
C-6887-250	14.5"	250 lbs.	5
C-6887-300	16.88"	300 lbs.	6
C-6887-350	19.25"	350 lbs.	7
C-6887-400	21.63"	400 lbs.	8
C-6887-450	24"	450 lbs.	9
C-6887-500	26.38"	500 lbs.	10
C-6887-550	28.75"	550 lbs.	11
C-6887-600	31.13"	600 lbs.	12
C-6887-650	33.5"	650 lbs.	13
C-6887-700	35.88"	700 lbs.	14
C-6887-750	38.25"	750 lbs.	15
C-6887-800	40.63"	800 lbs.	16

Material:

- Weights - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized



DIMENSIONS

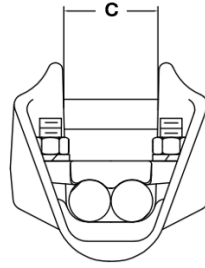
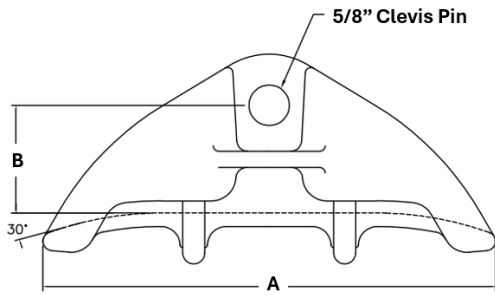
CATALOG NUMBER	COND. RANGE MIN.	COND. RANGE MAX.	DIMENSIONS			52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)	CLEVIS (-C)	WEIGHT/ 100
			A	B	C				
SC-T2-397.5-N	0.398"	0.783"	7.75"	2.31"	1.81"	SI-1750	RYCI-65-1750	SCE-55-1750	290 Lbs.
SC-T2-666-N	0.602"	1"	7.5"	2.59"	2.28"	SI-2000	RYCE-65-2000	SCE-55-2187	400 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter Pin - stainless steel
- Grommets - neoprene

Application Notes:

- For use on TP conductor HV applications
- Recommended torque: 40-45 ft-lbs
- Ultimate strength: 25,000 lbs



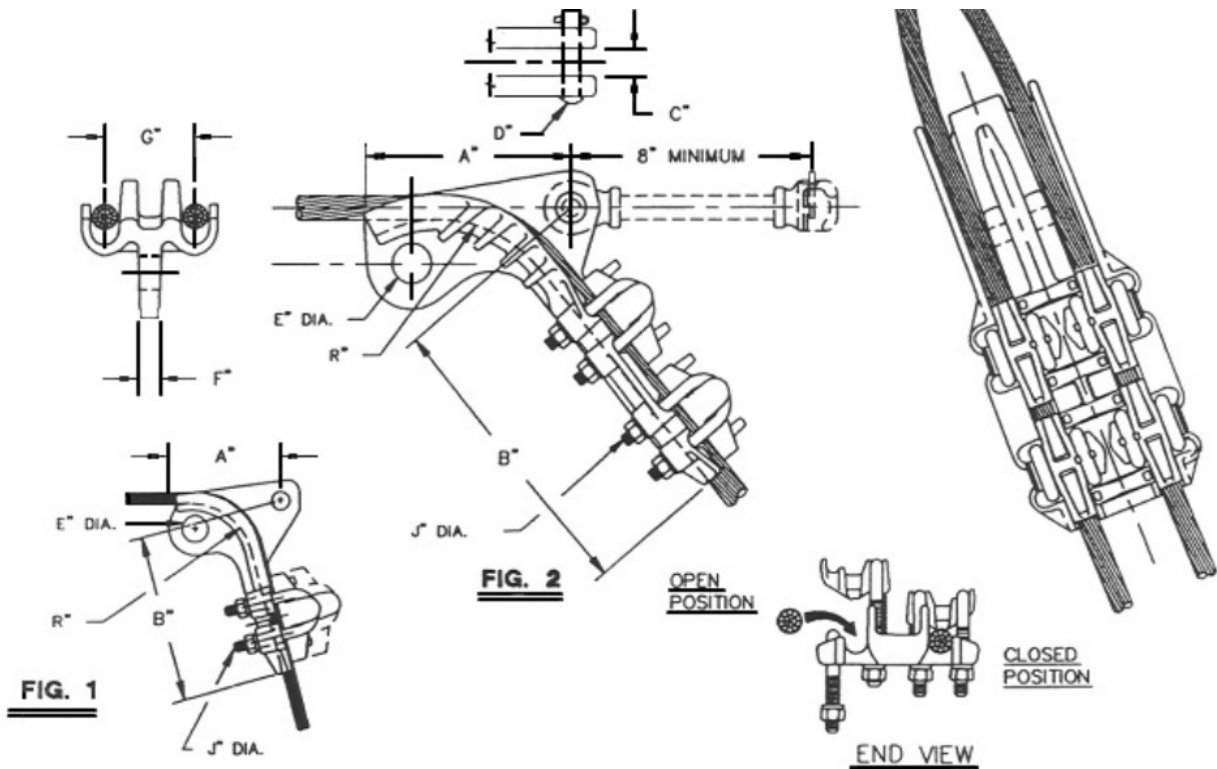
CATALOG NUMBER	COND. RANGE MIN.	COND. RANGE MAX.	DIMENSIONS			52-3/5 SOCKET (-S)	Y-CLEVIS (-RYCI)	CLEVIS (-C)	WEIGHT/100
			A	B	C				
CSC-T2-636	0.783"	0.977"	7.75"	2.31"	1.81"	SI-2000	RYCI-65-2187	SCE-55-2187	290 Lbs.
CSC-T2-1113	0.914"	1.259"	7.5"	2.59"	2.28"	SI-2500	RYCI-65-2500	SCE-55-250	400 Lbs.

Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter Pin - stainless steel

Application Notes:

- For use on TP conductors HV applications
- Recommended torque: 40-45 ft-lbs
- Ultimate strength: 25,000 lbs
- Add "-BC" suffix for bolt, nut, and cotter key



CATALOG NUMBER	FIG	COND. RANGE	DIMENSIONS									ULTIMATE STRENGTH (Lbs)		WEIGHT/100
			A	B	C	D	E	F	G	J	R	BODY	SAG EYE	
AQD-T2-57	1	0.25" - 0.57"	5.5"	6.5"	0.75"	0.63"	1.13"	0.5"	2.75"	0.38"	2.38"	17,000	10,000	512 Lbs.
AQDH-T2-94	2	0.5" - 0.94"	7.88"	13.38"	0.88"	0.63"	1.5"	0.63"	3.38"	0.5"	5.0"	30,000	18,000	1630 Lbs.

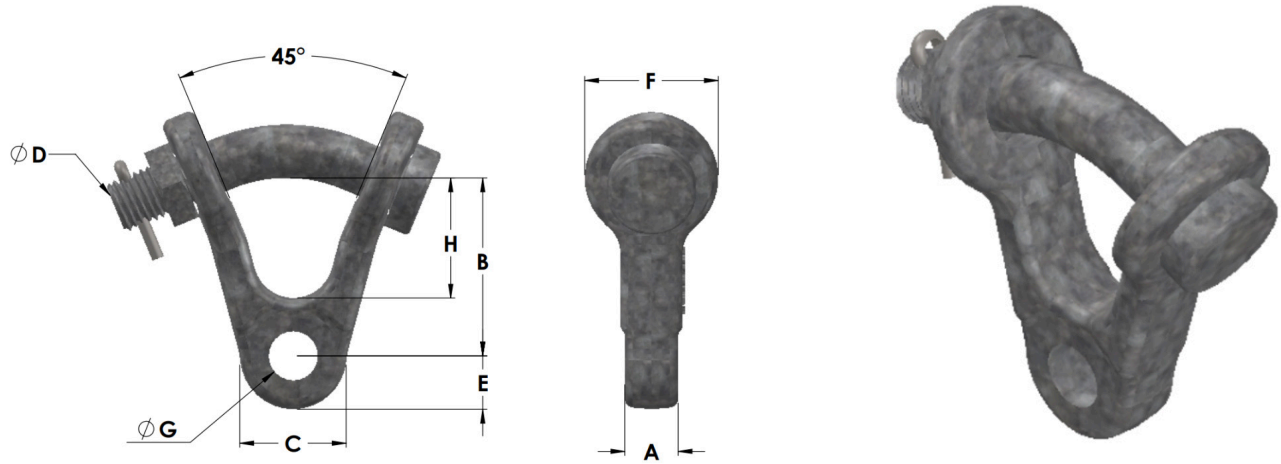
Material:

- Body & keeper - aluminum alloy
- Hardware - steel, hot-dipped galvanized
- Cotter pin & compression spring - stainless steel

Application Notes:

- To specify the socket fitting, add suffix "HLSE" to catalog number
- Recommended torque on u-bolts: 3/8" = 20-25 ft-lbs
- Recommended torque on u-bolts: 1/2" = 40-45 ft-lbs
- Captive hardware
- Spring loaded keepers hold the keeper in the open position for easier conductor installation

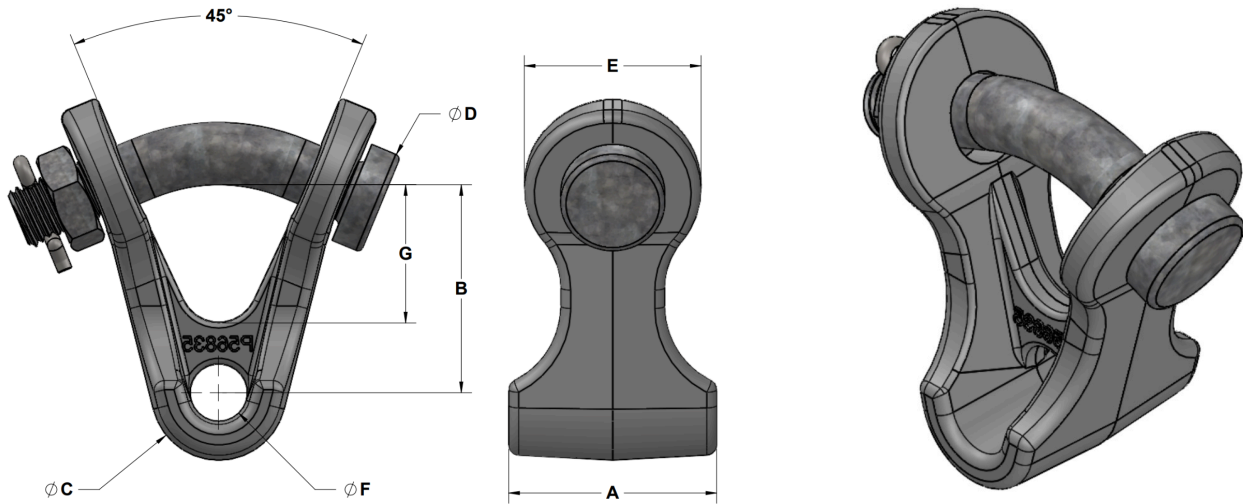




CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
RYCE-65-625	19,000 Lbs.	0.63"	3.5"	1.63"	0.75"	0.81"	2"	0.69"	1.75"	225 Lbs.
RYCE-65-625A	30,000 Lbs.	0.63"	2.63"	2.13"	0.75"	0.94"	2.13"	0.69"	1.81"	220 Lbs.
RYCE-65-750	30,000 Lbs.	0.75"	2.63"	2.13"	0.75"	0.94"	2.13"	0.69"	1.81"	238 Lbs.
RYCE-65-1062	30,000 Lbs.	1.06"	2.5"	1.56"	0.75"	0.81"	2"	0.69"	1.75"	200 Lbs.
RYCE-65-2000	30,000 Lbs.	2"	2.56"	1.5"	0.75"	0.75"	2.13"	0.69"	1.56"	272 Lbs.
RYCE-66-875	30,000 Lbs.	0.88"	3.5"	2"	0.75"	1"	2.13"	0.81"	1.75"	275 Lbs.
RYCE-66-1062	25,000 Lbs.	1.06"	2.5"	1.56"	0.75"	0.81"	2"	0.81"	1.75"	270 Lbs.
RYCE-66-1250	30,000 Lbs.	1.25"	2.44"	1.63"	0.75"	0.81"	2.19"	0.81"	1.56"	275 Lbs.
RYCE-66-1750	30,000 Lbs.	1.75"	2.56"	1.75"	0.75"	0.81"	2.13"	0.81"	2"	285 Lbs.
RYCE-66-2125	40,000 Lbs.	2.13"	2.5"	1.75"	0.75"	0.75"	2.25"	0.81"	1.75"	305 Lbs.
RYCE-66-3250	36,000 Lbs.	3.25"	2.5"	1.56"	0.75"	0.78"	2.25"	0.81"	1.75"	356 Lbs.

Material:

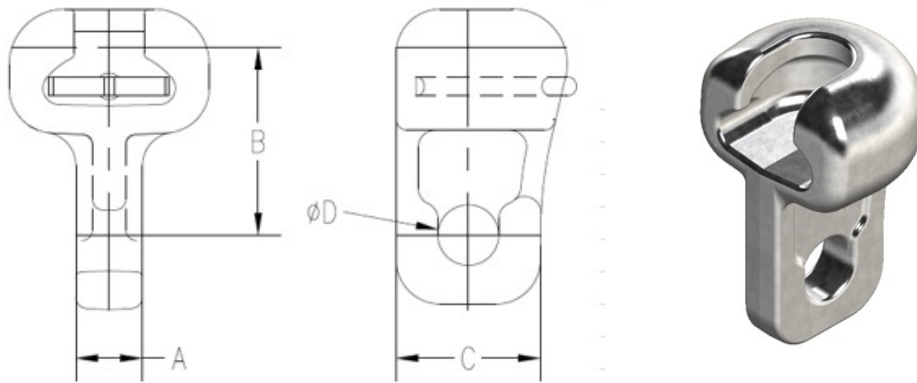
- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel
- Includes bolt, nut, and cotter pin



CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	WEIGHT/100
RYCI-65-1250	30,000 Lbs.	1.25"	2.63"	1.5"	0.75"	2.13"	0.69"	1.88"	150 Lbs.
RYCI-65-1500	30,000 Lbs.	1.5"	2.63"	1.5"	0.75"	2.13"	0.69"	1.88"	170 Lbs.
RYCI-65-1750	30,000 Lbs.	1.75"	2.63"	1.5"	0.75"	2.13"	0.69"	1.88"	230 Lbs.
RYCI-65-2187	30,000 Lbs.	2.19"	2.63"	1.5"	0.75"	2.13"	0.69"	1.88"	244 Lbs.
RYCI-65-2500	30,000 Lbs.	2.5"	2.38"	1.5"	0.75"	2.13"	0.69"	1.63"	310 Lbs.
RYCI-66-2000	36,000 Lbs.	2"	2.63"	1.5"	0.75"	2.13"	0.81"	1.88"	244 Lbs.
RYCI-66-2125	30,000 Lbs.	2.13"	2.63"	1.5"	0.75"	2.13"	0.81"	1.88"	315 Lbs.
RYCI-66-2750	36,000 Lbs.	2.75"	2.44"	1.75"	0.75"	2.13"	0.81"	1.63"	330 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel
- Includes bolt, nut, and cotter pin

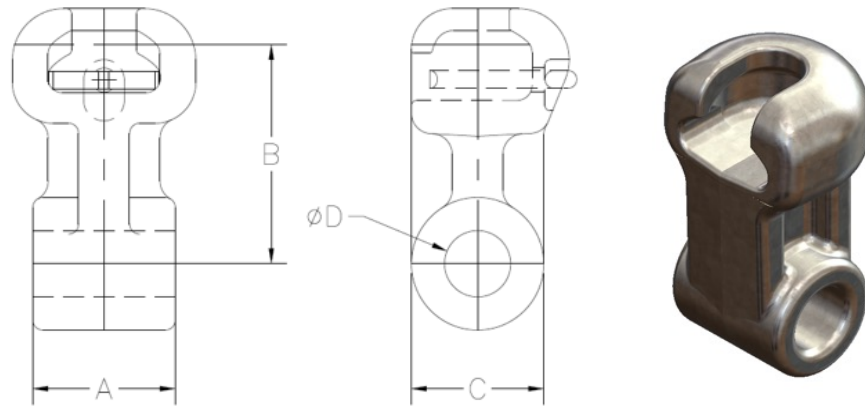


CATALOG NUMBER	ULTIMATE STRENGTH	FOR INSULATOR CLASS	A	B	C	D	WEIGHT/100
SI-500	18,000 Lbs.	52-3 & 5	0.5"	2.19"	1.63"	0.69"	108 Lbs.
SI-625	20,000 Lbs.	52-3 & 5	0.63"	2.19"	1.63"	0.69"	111 Lbs.
SI-750	25,000 Lbs.	52-3 & 5	0.75"	2.19"	1.63"	0.69"	113 Lbs.
SI-750-6	30,000 Lbs.	52-3 & 5	0.75"	2.75"	2"	0.81"	180 Lbs.
SI-875	30,000 Lbs.	52-3 & 5	0.88"	2.19"	1.63"	0.69"	115 Lbs.
SI-875-6	30,000 Lbs.	52-3 & 5	0.88"	2.19"	1.69"	0.81"	121 Lbs.
SI-1000-6	30,000 Lbs.	52-3 & 5	1"	2.38"	1.69"	0.81"	185 Lbs.
SI-1062	30,000 Lbs.	52-3 & 5	1.06"	2.31"	1.63"	0.69"	117Lbs.
SI-1125	30,000 Lbs.	52-3 & 5	1.13"	2.19"	1.63"	0.69"	118 Lbs.
SI-1375	30,000 Lbs.	52-3 & 5	1.38"	2.19"	1.63"	0.69"	122 Lbs.
SI-1375-6	30,000 Lbs.	52-3 & 5	1.38"	2.19"	1.63"	0.81"	128 Lbs.
SI-1625-6	30,000 Lbs.	52-3 & 5	1.63"	2.81"	1.69"	0.81"	130 Lbs.
SE-11-6A	30,000 Lbs.	52-3 & 5	1.13"	3"	1.63"	0.81"	170 Lbs.
SI-1750	30,000 Lbs.	52-3 & 5	1.75"	2.19"	1.5"	0.69"	130 Lbs.
SI-1750-6	30,000 Lbs.	52-3 & 5	1.75"	2.19"	1.5"	0.81"	136 Lbs.
SI-2000	30,000 Lbs.	52-3 & 5	2"	2.19"	1.5"	0.69"	138 Lbs.
SI-2187	30,000 Lbs.	52-3 & 5	2.19"	2.19"	1.5"	0.69"	146 Lbs.
SI-2500	30,000 Lbs.	52-3 & 5	2.5"	2.19"	1.5"	0.69"	168 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Cotter pin - stainless steel

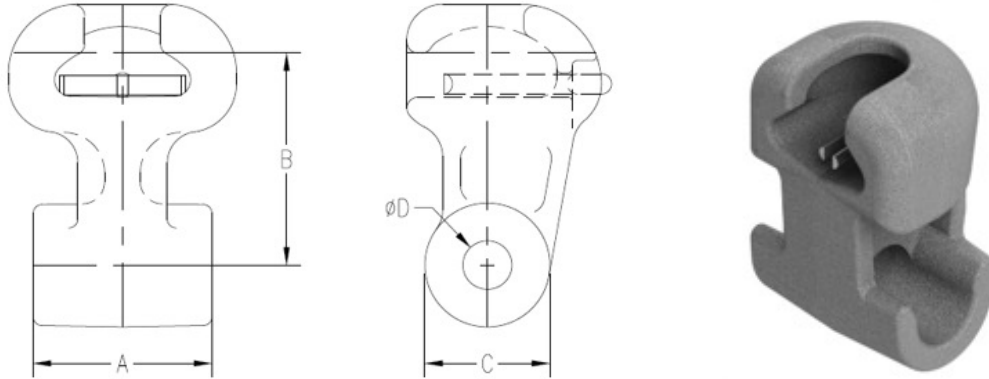




CATALOG NUMBER	ULTIMATE STRENGTH	FOR INSULATOR CLASS	A	B	C	D	WEIGHT/100
SE-1250-6	30,000 Lbs.	52-3 & 5	1.25"	2.38"	1.69"	0.81"	235 Lbs.
SE-1250-8	30,000 Lbs.	52-3 & 5	1.25"	2.5"	2"	1.06"	235 Lbs.
SE-1750-6	30,000 Lbs.	52-3 & 5	1.75"	2.69"	1.63"	0.81"	197 Lbs.
SE-2000-6	30,000 Lbs.	52-3 & 5	2"	3"	2"	0.81"	230 Lbs.
SE-2000-7	30,000 Lbs.	52-3 & 5	2.5"	3"	1.75"	0.81"	235 Lbs.
SE-2500A-6	30,000 Lbs.	52-3 & 5	2.5"	3"	1.75"	0.94"	255 Lbs.

Material:

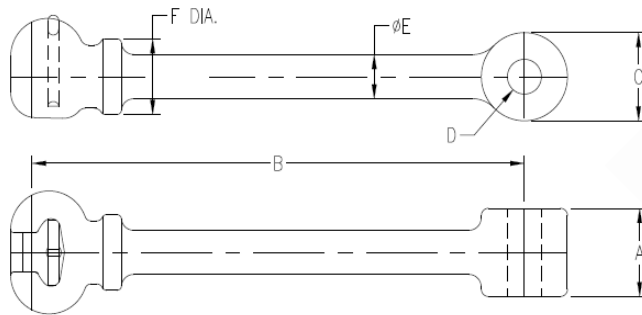
- Body - ductile iron, hot-dipped galvanized
- Cotter pin - stainless steel



CATALOG NUMBER	ULTIMATE STRENGTH	FOR INSULATOR CLASS	A	B	C	D	WEIGHT/100
SE8-1000-5	30,000 Lbs.	52-8 & 11	1"	4.31"	2.25"	0.69"	390 Lbs.
SE8-1000-6	45,000 Lbs.	52-8 & 11	1"	4.31"	2.25"	0.81"	385 Lbs.
SE8-1375	30,000 Lbs.	52-8 & 11	1.38"	3"	1.88"	0.69"	325 Lbs.
SE8-1375-6	45,000 Lbs.	52-8 & 11	1.38"	3"	1.88"	0.81"	325 Lbs.
SE8-1437-6	45,000 Lbs.	52-8 & 11	1.44"	5.31"	2.25"	0.81"	580 Lbs.
SE8-1437-7	50,000 Lbs.	52-8 & 11	1.44"	5.31"	2.25"	0.94"	580 Lbs.
SE8-1437-8	50,000 Lbs.	52-8 & 11	1.44"	5.31"	2.25"	1.06"	580 Lbs.
SE8-1437-9	50,000 Lbs.	52-8 & 11	1.44"	5.31"	2.25"	1.81"	580 Lbs.
SE8-1625-6	45,000 Lbs.	52-8 & 11	1.63"	3.38"	1.75"	0.81"	335 Lbs.
SE8-1750-6	45,000 Lbs.	52-8 & 11	1.75"	3.38"	1.75"	0.81"	340 Lbs.
SE8-2187-6	45,000 Lbs.	52-8 & 11	2.19"	3.38"	1.75"	0.81"	378 Lbs.
SE8-2500-6	45,000 Lbs.	52-8 & 11	2.5"	3.38"	1.75"	0.81"	382 Lbs.
SE8-3250-7	50,000 Lbs.	52-8 & 11	3.25"	3.38"	2"	0.81"	420 Lbs.

Material:

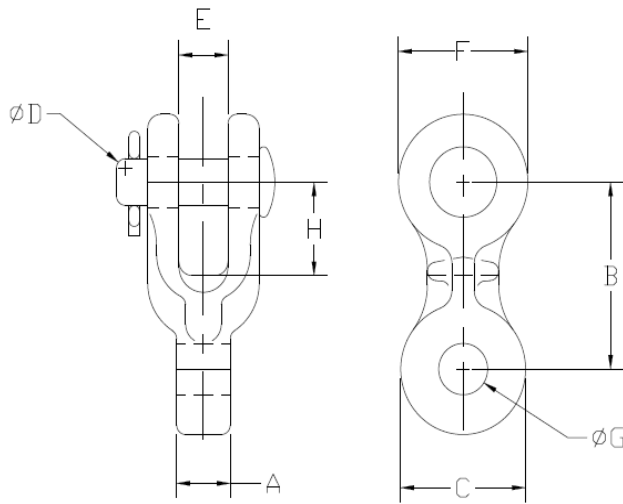
- Body - ductile iron, hot-dipped galvanized
- Cotter pin - stainless steel



CATALOG NUMBER	ULTIMATE STRENGTH	FOR INSULATOR CLASS	A	B	C	D	E	F	WEIGHT/100
SEHL-625	30,000 Lbs.	52-3 & 5	0.63"	10"	3"	0.69"	0.94"	1.5"	280 Lbs.
SEHL-625-8	30,000 Lbs.	52-3 & 5	0.63"	10"	3"	1.69"	0.94"	1.5"	280 Lbs.
SEHL-687	30,000 Lbs.	52-3 & 5	0.69"	12.81"	2"	0.69"	0.94"	1.5"	350 Lbs.
SEHL-750	30,000 Lbs.	52-3 & 5	0.75"	8.38"	2"	0.69"	0.94"	1.5"	272 Lbs.
SEHL-750-6	30,000 Lbs.	52-3 & 5	0.75"	8.38"	2"	0.94"	0.94"	1.5"	272 Lbs.
SEHL-1125	30,000 Lbs.	52-3 & 5	1.13"	8.38"	1.56"	0.69"	0.94"	1.5"	265 Lbs.
SEHL-1125-6	30,000 Lbs.	52-3 & 5	1.13"	8.38"	1.56"	0.81"	0.94"	1.5"	265 Lbs.
SEHL-1375	30,000 Lbs.	52-3 & 5	1.38"	10"	1.75"	0.69"	0.94"	1.5"	270 Lbs.
SEHL-1375-6	30,000 Lbs.	52-3 & 5	1.38"	10"	1.75"	0.81"	0.94"	1.5"	268 Lbs.
SEHL-1625	30,000 Lbs.	52-3 & 5	1.63"	10"	1.75"	0.69"	0.94"	1.5"	272 Lbs.
SEHL-1625-6	30,000 Lbs.	52-3 & 5	1.63"	10"	1.75"	0.81"	0.94"	1.5"	272 Lbs.
SEHL-1750	30,000 Lbs.	52-3 & 5	1.75"	10"	1.75"	0.69"	0.94"	1.5"	275 Lbs.
SEHL-1750-6	30,000 Lbs.	52-3 & 5	1.75"	10"	1.75"	0.81"	0.94"	1.5"	275 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Cotter pin - stainless steel



Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter add suffix "-BC" to catalog number
- For applications > 230kV add suffix "-S" for sphere nut

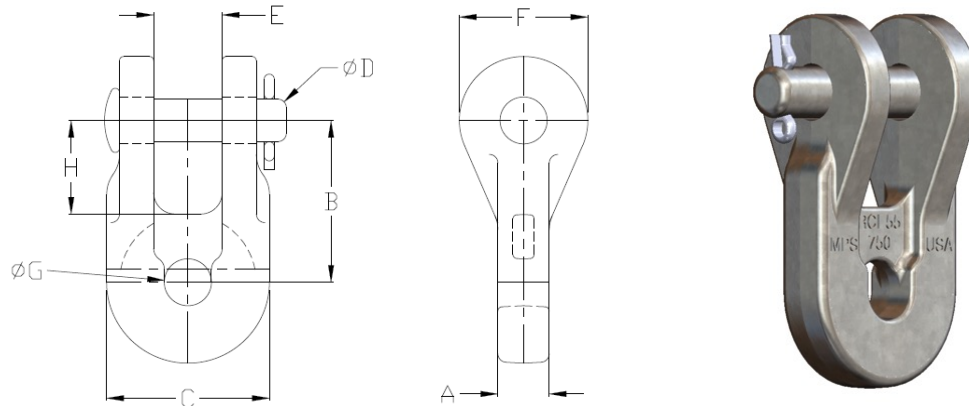
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TRANSMISSION CONDUCTOR HARDWARE CLAMP FITTINGS

SCE
Clevis Eye

CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
SCE-55-500	18,000 Lbs.	0.5"	2.63"	1.88"	0.63"	0.81"	1.75"	0.69"	1.13"	134 Lbs.
SCE-55-625	25,000 Lbs.	0.63"	2.88"	1.94"	0.63"	0.81"	1.63"	0.69"	1.38"	135 Lbs.
SCE-55-750	25,000 Lbs.	0.75"	2.5"	1.75"	0.63"	0.69"	1.75"	0.69"	1.25"	136 Lbs.
SCE-55-875	25,000 Lbs.	0.88"	2.88"	1.75"	0.63"	0.69"	1.63"	0.69"	1.38"	138 Lbs.
SCE-55-875A	25,000 Lbs.	0.88"	3.81"	1.75"	0.63"	0.81"	1.88"	0.69"	1.75"	139 Lbs.
SCE-55-1125	25,000 Lbs.	1.13"	2.88"	1.63"	0.63"	0.69"	1.63"	0.69"	1.38"	140 Lbs.
SCE-55-1375	30,000 Lbs.	1.38"	2.5"	1.5"	0.63"	0.81"	1.75"	0.69"	1.25"	158 Lbs.
SCE-55-1375A	30,000 Lbs.	1.38"	2.88"	1.44"	0.63"	0.69"	1.63"	0.69"	1.38"	143 Lbs.
SCE-55-1500	30,000 Lbs.	1.5"	2.5"	1.5"	0.63"	0.69"	1.75"	0.69"	1.75"	135 Lbs.
SCE-55-1625	30,000 Lbs.	1.63"	2.5"	1.5"	0.63"	0.69"	1.75"	0.69"	1.25"	162 Lbs.
SCE-55-1750	30,000 Lbs.	1.75"	2.88"	1.44"	0.63"	0.69"	1.63"	0.69"	1.38"	162 Lbs.
SCE-55-2000	30,000 Lbs.	2"	2.88"	1.63"	0.63"	0.69"	1.88"	0.69"	1.44"	180 Lbs.
SCE-55-2187	30,000 Lbs.	2.19"	2.88"	1.44"	0.63"	0.69"	1.88"	0.69"	1.44"	210 Lbs.
SCE-55-2500	30,000 Lbs.	2.5"	2.88"	1.63"	0.63"	0.69"	1.88"	0.69"	1.19"	214 Lbs.
SCE-56-625	30,000 Lbs.	0.63"	2.94"	2.25"	0.63"	0.69"	2"	0.81"	1.19"	192 Lbs.
SCE-56-1125	30,000 Lbs.	1.13"	3.13"	1.88"	0.63"	0.88"	1.75"	0.81"	1.5"	10 Lbs.
SCE-56-1375	30,000 Lbs.	1.38"	2.5"	1.69"	0.63"	0.81"	1.75"	0.81"	1.13"	186 Lbs.
SCE-56-1625	30,000 Lbs.	1.63"	2.88"	1.5"	0.63"	0.81"	1.75"	0.81"	1.69"	190 Lbs.
SCE-56-1750	30,000 Lbs.	1.75"	2.88"	1.44"	0.63"	0.69"	1.63"	0.81"	1.38"	190 Lbs.
SCE-56-2000	30,000 Lbs.	2"	2.88"	1.75"	0.63"	0.69"	1.75"	0.94"	1.69"	192 Lbs.
SCE-66-1625	35,000 Lbs.	1.63"	2.88"	1.75"	0.75"	0.88"	2"	0.81"	1.75"	172 Lbs.





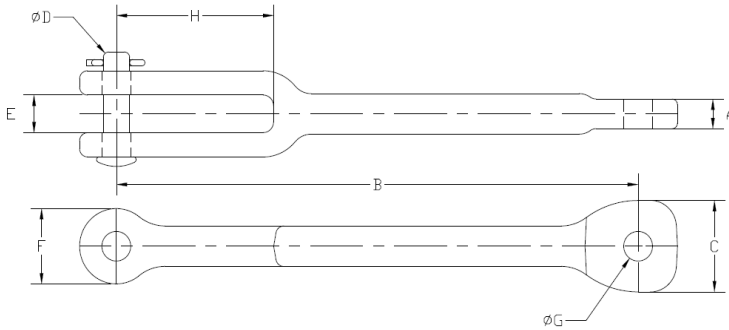
CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
RCE-55-625	18,000 Lbs.	0.63"	2.88"	1.5"	0.63"	0.69"	1.5"	0.69"	1.25"	135 Lbs.
RCE-55-750	30,000 Lbs.	0.75"	2.38"	2.5"	0.63"	1"	2"	0.69"	1.38"	145 Lbs.
RCE-55-750A	18,000 Lbs.	0.75"	2.88"	1.5"	0.63"	0.69"	1.5"	0.69"	1.25"	140 Lbs.
RCE-55-1125	25,000 Lbs.	1.13"	2.88"	1.63"	0.63"	0.19"	1.88"	0.69"	1.31"	148 Lbs.
RCE-55-1375	25,000 Lbs.	1.38"	2.88"	1.5"	0.63"	0.19"	1.88"	0.69"	1.88"	171 Lbs.
RCE-55-1750	30,000 Lbs.	1.75"	2.88"	1.38"	0.63"	0.19"	1.88"	0.69"	1.88"	190 Lbs.
RCE-55-2000	30,000 Lbs.	2"	2.88"	1.63"	0.63"	0.88"	1.88"	0.69"	1.88"	205 Lbs.
RCE-55-2187	30,000 Lbs.	2.19"	2.88"	1.63"	0.63"	0.88"	1.88"	0.69"	1.88"	210 Lbs.
RCE-55-2500	30,000 Lbs.	2.5"	2.88"	1.63"	0.63"	0.69"	1.88"	0.69"	1.31"	215 Lbs.
RCE-65-687	30,000 Lbs.	0.69"	3"	2.38"	0.75"	0.88"	1.75"	0.69"	1.75"	145 Lbs.
RCE-66-812	40,000 Lbs.	0.81"	3.5"	2.25"	0.75"	1"	2.31"	0.19"	1.63"	190 Lbs.
RCE-66-1000	30,000 Lbs.	1"	2.56"	1.75"	0.75"	0.19"	2"	0.19"	1.69"	198 Lbs.
RCE-66-1125	30,000 Lbs.	1.13"	3"	1.75"	0.75"	0.19"	1.88"	0.19"	2.13"	200 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For applications > 230kV add suffix "-S" for sphere nut



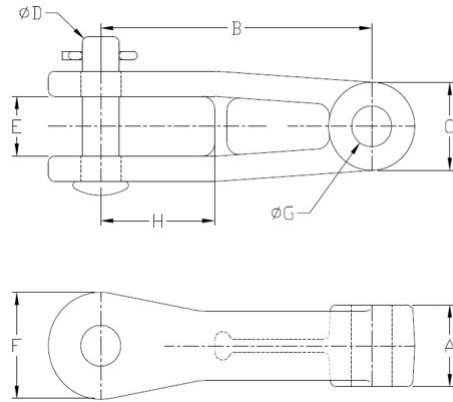
CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
SCEL-55-687	30,000 Lbs.	0.69"	7.44"	2.13"	0.63"	0.88"	1.75"	0.69"	3.75"	260 Lbs.
SCEL-55-687A	30,000 Lbs.	0.69"	9"	2.13"	0.63"	0.88"	1.75"	0.69"	3.75"	290 Lbs.
SCEL-55-687B	30,000 Lbs.	0.69"	12.44"	2.13"	0.63"	0.88"	1.75"	0.69"	3.75"	330 Lbs.
SCEL-55-687C	30,000 Lbs.	0.69"	16"	2.13"	0.63"	0.88"	1.75"	0.69"	3.75"	360 Lbs.
SCEL-66-1000	30,000 Lbs.	1"	9"	1.94"	0.75"	1.19"	2.5"	0.81"	1.63"	298 Lbs.
SCEL-77-1125	60,000 Lbs.	1.13"	8.63"	2.5"	0.88"	1.25"	2.5"	0.94"	2"	525 Lbs.

Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

- For bolt, nut, and cotter add suffix "-BC" to catalog number
- For applications > 230kV add suffix "-S" for sphere nut



CATALOG NUMBER	ULTIMATE STRENGTH	A	B	C	D	E	F	G	H	WEIGHT/100
RCEL-65-1250	40,000 Lbs.	1.25"	5.5"	1.75"	0.75"	1.19"	2.13"	0.69"	2.31"	340 Lbs.
RCEL-65-1375	30,000 Lbs.	1.38"	5.5"	1.75"	0.75"	0.13"	2.13"	0.69"	2.31"	340 Lbs.
RCEL-66-1250	40,000 Lbs.	1.25"	5.5"	1.75"	0.75"	1.13"	2.13"	0.81"	2.31"	340 Lbs.
RCEL-66-1375	40,000 Lbs.	1.38"	5.5"	1.75"	0.75"	1.13"	2.13"	0.81"	2.31"	340 Lbs.
RCEL-66-1625	40,000 Lbs.	1.63"	5.5"	1.75"	0.75"	1.13"	2.13"	0.81"	2.31"	365 Lbs.
RCEL-66-1750	45,000 Lbs.	1.75"	5.5"	1.75"	0.75"	1.13"	2.25"	0.81"	2.31"	380 Lbs.
RCEL-66-2000	40,000 Lbs.	2"	5.5"	2"	0.75"	1.38"	2.5"	0.81"	2.75"	380 Lbs.
RCEL-68-1125	36,000 Lbs.	1.13"	5.5"	2.13"	0.75"	1.13"	2.13"	1.06"	2.31"	565 Lbs.
RCEL-68-1500	40,000 Lbs.	1.5"	5.5"	1.94"	0.75"	1.13"	1.94"	1.06"	2.13"	395 Lbs.
RCEL-69-1250	40,000 Lbs.	1.25"	5.5"	2.38"	0.75"	1"	2.13"	1.06"	2.31"	475 Lbs.
RCEL-77-1625	60,000 Lbs.	1.63"	5.5"	2.25"	0.88"	0.94"	2.5"	0.94"	2.75"	560 Lbs.
RCEL-77-2000	60,000 Lbs.	2"	5.5"	2"	0.88"	1.38"	2.5"	0.94"	2.75"	570 Lbs.
RCEL-78-1625	60,000 Lbs.	1.63"	5.5"	2.25"	0.88"	0.94"	2.5"	1.06"	2.75"	560 Lbs.
RCEL-79-1250	60,000 Lbs.	1.25"	5.5"	2.63"	0.88"	1.38"	2.5"	1.19"	2.75"	555 Lbs.

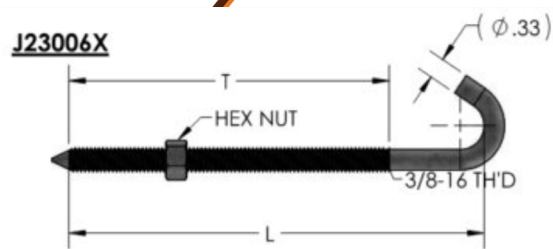
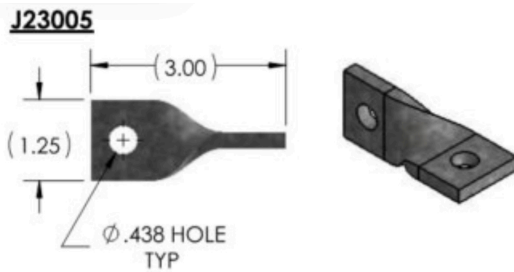
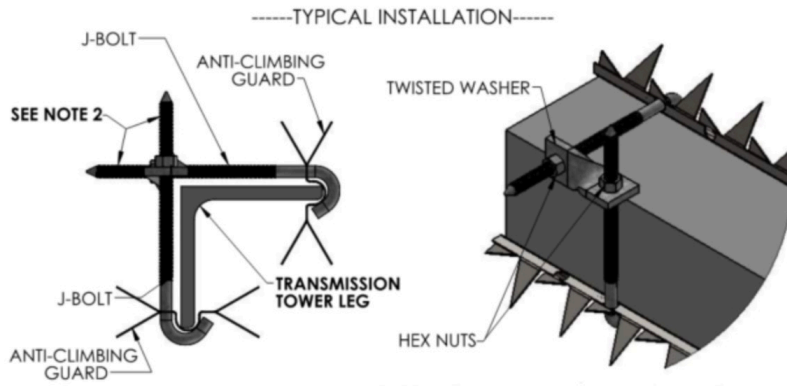
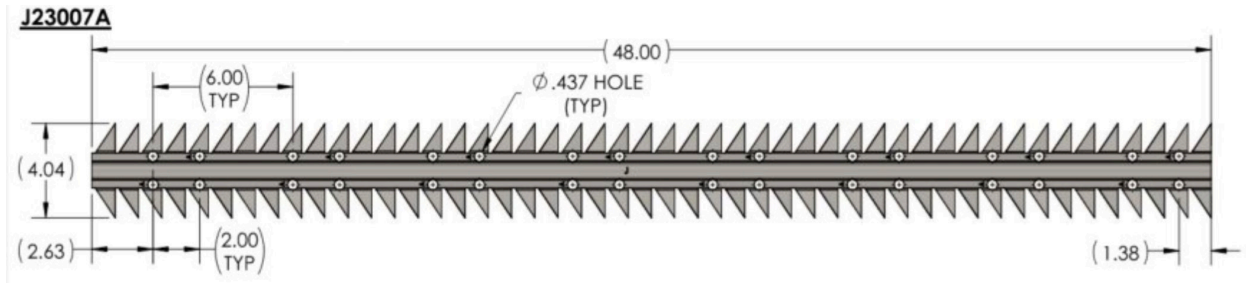
Material:

- Body - ductile iron, hot-dipped galvanized
- Hardware - steel, hot-dipped galvanized
- Cotter pin - stainless steel

Application Notes:

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Each item sold separately

CATALOG NUMBER	DESCRIPTION	T	L	STD PACK QTY EACH	PACKAGING
J23005	Twisted Washer	-	-	100	2 Gallon Bucket
J230063	J-Bolt with Nut	2.0"	3.5"	200	2 Gallon Bucket
J230066	J-Bolt with Nut	5.0"	6.5"	150	2 Gallon Bucket
J230069	J-Bolt with Nut	6.0"	9.5"	50	2 Gallon Bucket
J23007A	Anti-Climbing Guard	-	48"	450	Wood Crate 65" x 45" x 29"

Application Notes:

1. All steel items protected by zinc galvanizing
2. Bolt may be bent to prevent disassembly





ED NIEDOSPIAL

For three decades, Ed has been a driving force behind our technical innovation and business growth. From Product Manager to Technical Director, his leadership has helped elevate our transmission product line—ensuring we stay competitive in performance, price, and quality.

Highlights:

- Led technical growth and product innovation
- Guided bid strategies and cost estimates
- Strengthened quality systems through ISO procedures
- Mentored teams and supported customer solutions

Ed's expertise continues to shape our success and future direction.



RICK GRUENDEL

Rick's 30-year journey with us reflects outstanding commercial leadership and deep product knowledge. As Commercial Director of Transmission, he has been key to expanding our market presence while maintaining our high standards.

Highlights:

- Drove growth through pricing and market insight
- Reviewed designs to support new business
- Led profitable bid strategies
- Contributed to product development and team growth

Rick's impact has been pivotal—and his leadership remains vital to our continued success.



BRYAN SCOGIN

Bryan's 34-year career reflects deep technical expertise and leadership in our most complex transmission solutions. Since joining MacLean Power in 1999 through acquisition, he has grown from EHV Design Engineer to Applications Engineering Manager, consistently advancing our capabilities.

Highlights:

- Led design and application of complex EHV and UHV hardware
- Progressed through key engineering and leadership roles
- Provided expert guidance on high-voltage solutions

Bryan's impact continues to set the standard for excellence in our most demanding work.

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